

SOIL SURVEY OF

Iberia Parish, Louisiana

This is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and agencies of the States, usually the Agricultural Experiment Stations. In some surveys, other Federal and local agencies also contribute. The Soil Conservation Service has leadership for the Federal part of the National Cooperative Soil Survey. In line with Department of Agriculture policies, benefits of this program are available to all, regardless of race, color, national origin, sex, religion, marital status, or age.

Major fieldwork for this soil survey was completed in the period 1968-71. Soil names and descriptions were approved in 1972. Unless otherwise indicated, statements in the publication refer to conditions in the survey area in 1971. This survey was made cooperatively by the Soil Conservation Service and the Louisiana Agricultural Experiment Station. It is part of the technical assistance furnished by the Iberia-Vermilion Soil and Water Conservation District.

Soil maps in this survey may be copied without permission, but any enlargement of these maps could cause misunderstanding of the detail of mapping and result in erroneous interpretations. Enlarged maps do not show small areas of contrasting soils that could have been shown at a larger mapping scale.

HOW TO USE THIS SOIL SURVEY

THIS SOIL SURVEY contains information that can be applied in managing farms, ranches, and woodlands; in selecting sites for roads, ponds, buildings, and other structures; and in judging the suitability of tracts of land for farming, industry, and recreation.

Locating Soils

All the soils of Iberia Parish are shown on the detailed map at the back of this publication. This map consists of many sheets made from aerial photographs. Each sheet is numbered to correspond with a number on the Index to Map Sheets.

On each sheet of the detailed map, soil areas are outlined and are identified by symbols. All areas marked with the same symbol are the same kind of soil. The soil symbol is inside the area if there is enough room; otherwise it is outside, and a pointer shows where the symbol belongs.

Finding and Using Information

limitation for a given use can be colored green, those with a moderate limitation can be colored yellow, and those with a severe limitation can be colored red.

Farmers and those who work with farmers can learn about use and management of the soils from the soil descriptions.

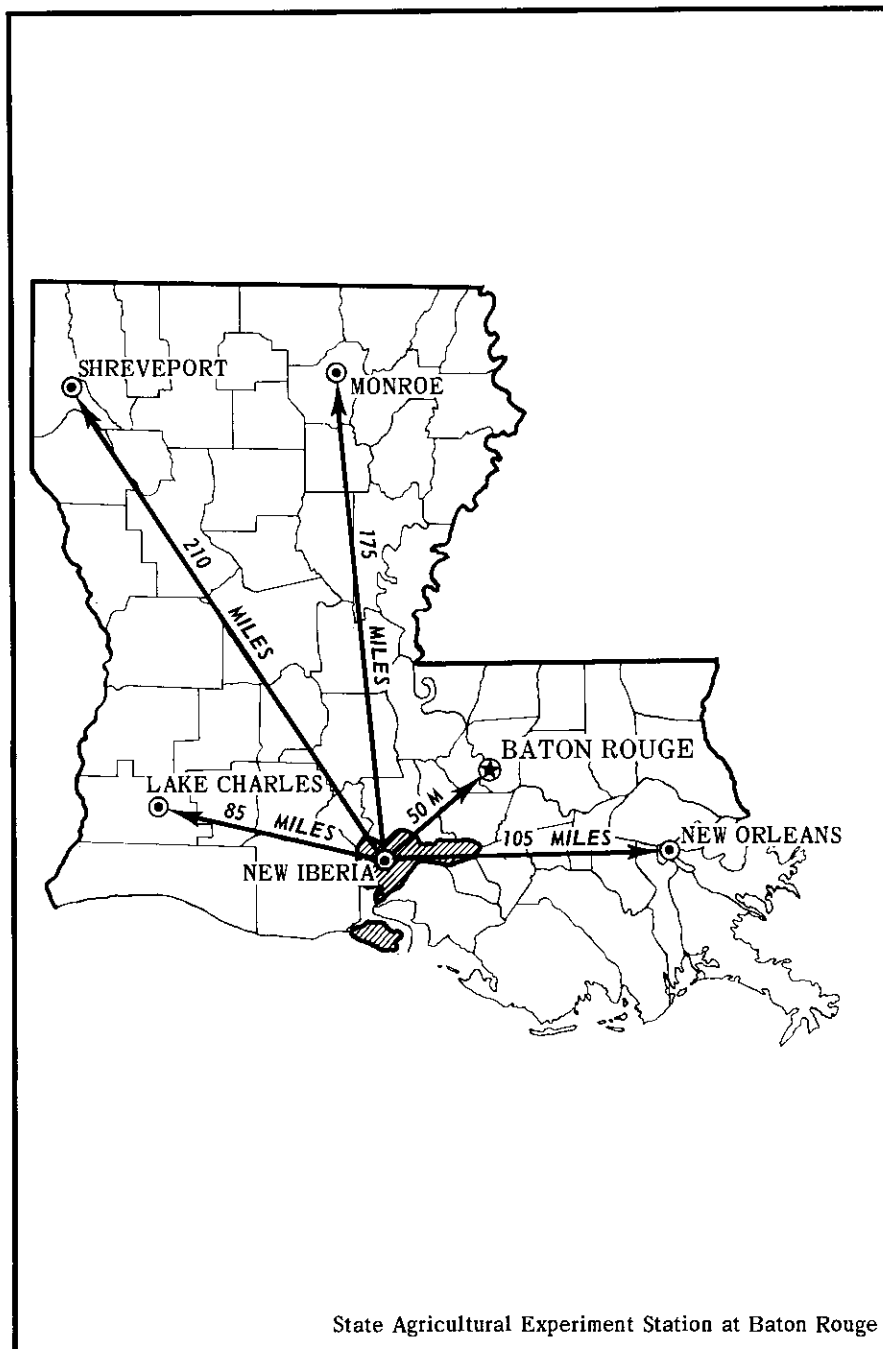
Foresters and others can refer to the section "Soils and Woodland," where the soils of the parish are grouped according to their suitability for trees.

Game managers, sportsmen, and others can find information about soils and wildlife in the section "Soils and Wildlife."

Ranchers and others can find, under "Soils and Range," groupings of the soils suitable for range, the plants that grow on each range site, and the hazards on marsh range.

Community planners and others can read about soil properties that affect the choice of sites for dwellings, industrial buildings and for recreation areas in the section "Soils and Engineering."

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Location of Iberia Parish in Louisiana.

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fail on a given kind of soil, and they relate this to the slow permeability of the soil or its high water table. They see that streets, road pavements, and foundations for houses crack on a given kind of soil, and they relate this failure to the high shrink-swell potential of the soil material. Thus, they use observation and knowledge of soil properties, together with available research data, to predict the limitations or suitability of a soil for present and potential uses.

After data have been collected and tested for the key, or benchmark, soils in a survey area, the soil scientists set up trial groups of soils. They test these groups by further study and by consultation with farmers, engineers, and others. They then adjust the groups according to the results of their study and consultation. Thus, the groups that are finally evolved reflect up-to-date knowledge of the soils and their behavior under current methods of use and management.

General Soil Map

The general soil map at the back of this survey shows, in color, the soil associations in Iberia Parish. A soil association is a landscape that has a distinctive proportional pattern of soils. It normally consists of one or more major soils and at least one minor soil, and it is named for the major soils. The soils in one association may occur in another, but in a different pattern.

A map showing soil associations is useful to people who want a general idea of the soils in a parish, who want to compare different parts of a parish, or who want to know the location of large tracts that are suitable for a certain kind of land use. Such a map is a useful general guide in managing a watershed, a wooded tract, or a wildlife area, or in planning engineering works, recreational facilities, and community developments. It is not a suitable map for planning the management of a farm or field, or for selecting the exact location of a road, building, or similar structure, because the soils in any one association ordinarily differ in slope, depth, drainage, and other characteristics that affect their management.

The soil associations in this survey have been grouped in three general kinds of landscapes for broad interpretative purposes. Each group and the 12 soil associations are described on the following pages.

Mineral Soils That Are Seldom to Never Flooded

Soils of this group are mostly at elevations of 5 to 25 feet above sea level (fig. 2). A small acreage on the salt domes is as much as 150 feet above sea level. Generally, only the soils in depressions and at low elevations are flooded by runoff or by hurricanes and tropical storm tides. The West Atchafalaya Basin protection levee prevents flooding of some of these areas by the Atchafalaya River. Most of the acreage is cultivated. Sugarcane is the principal crop. The five soil associations in this group make up 38 percent of the parish.

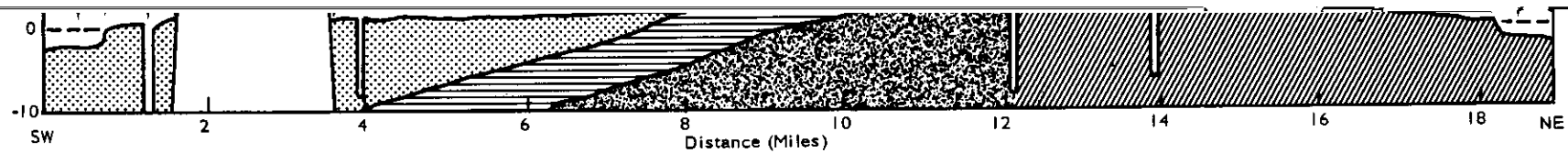


Figure 2.—Cross section of Iberia Parish showing elevation and parent material by soil associations.

1. Iberia-Loreauville-Baldwin association

Level, poorly drained clayey soils and somewhat poorly drained loamy soils of the alluvial plain.

clay loam and a subsoil of dark-gray and olive-gray clay or silty clay loam. They are poorly drained and very silty.

reage of Galvez soils is used for homesites or nonfarm uses. Sugarcane is the principal beans and truck crops are also grown. The are about 100 to 500 acres. Most are owner The trend is toward a change from cropland sites and other nonfarm uses.

sociation is suited to most crops and pasture own in the parish. Surface drainage and com-tilization are needed on Galvez and Baldwin and smoothing, control of erosion, and complete on are needed on Gallion soils. The associa-also suited to wildlife habitat and woodland. ngth is a limitation for some uses on the oils; wetness and low strength are the main is on Galvez soils; and wetness, low strength, shrink-swell potential are the main limita-most uses on Baldwin soils. The Gallion soils to Bayou Teche are choice homesites.

au-Patoutville association

level and very gently sloping, somewhat poorly oamy soils of the terrace upland

association consists of soils that are loamy ut. It is at the highest elevations and on the ping landscape on the terrace upland. Slopes rally $\frac{1}{3}$ to 2 percent. Elevations are domi-to 30 feet above sea level. Drainage of surface provided by ditches dug in the depressions mproved natural outlets. The association is not subject to flooding.

ssociation makes up about 3 percent of the t is about 40 percent Coteau soils, 28 percent le soils, and 32 percent Calhoun, Frost, Mem- Jeanerette soils.

soils are at the highest elevations and are post sloping landscapes. They have a surface dark grayish-brown silt loam and a subsoil yellowish-brown and brown silty clay loam. e somewhat poorly drained and moderately rmeable.

ville soils are the lower elevations and are They have a surface layer of dark grayish-lt loam and a subsoil of dark grayish-brown r loam over yellowish-brown and light olive-loam. They are somewhat poorly drained and rmeable.

of the association is cultivated. Sugarcane is ipal crop. Soybeans and truck crops are also arms are about 10 to 50 acres. Most are owner The trend is toward a change from crop-homesites and other nonfarm uses.

sociation is suited to most crops and pasture own in the parish. Surface drainage and com-tilization are needed. The association is also wildlife habitat and woodland. Wetness and ngth are the main limitations for most uses.

phis-Frost association

and hilly, well-drained and very gently sloping, rained loamy soils of the salt domes

association consists of soils that are loamy

throughout. It is at the highest elevations and on the most sloping and dissected landscape in the parish—the salt domes on Avery, Weeks, and Jefferson Islands. Slopes generally are 1 to 8 percent. On small acreage

Most of the association is wooded (fig. 4). It is largely used for recreation, wildlife habitat, homesites, and other nonfarm uses. Most of the Frost soils and a small acreage of Memphis soils are cultivated.

general flooding by local runoff, gulf tidewater, or the Atchafalaya River. About three-fourths of the acreage is wooded. The rest is in marsh vegetation. The five soil associations in this group make up 36 percent of the parish.

6. Fausse-Sharkey-Newellton association

Very poorly drained to somewhat poorly drained clayey soils of the alluvial plain adjacent to the Atchafalaya Basin Floodway

This association is in low areas and swamps in the



ashore saltgrass. The association is part of the 1 Sage Wildlife Refuge and Game Preserve. managed by the Refuge Division of the Louisiana Life and Fisheries Commission. No change in use is foreseen.

oding, wetness, low strength, and high shrink-potential are the main limitations for most uses. ty is a limitation for some.

Scatlake association

poorly drained clayey soils of the soft marshes

s association is in soft marshes on Marsh Island. nearly level. Elevations are near sea level. Most area is flooded much of the time by normal gulf It is also subject to occasional deep flooding by tides. Tides range up to 10 feet above normal hurricanes and tropical storms pass over or near ea. There are many lakes and tidal channels.

s association makes up about 6 percent of the t. It is about 80 percent Scatlake soils and 20 per-Placedo and Lafitte soils.

tlake soils have a surface layer of mucky peat 6 inches thick. Below this is about 6 inches of dark gray, semifluid mucky clay. The underlying ial is dark-gray, black, gray, and greenish-gray, uid clay and mucky clay. The soils are very y drained, very slowly permeable, and saline. They o boggy for livestock grazing.

st of the vegetation is the Brackish Marsh type which is dominantly marshhay cordgrass and nee-uss rush. The association is part of the Russell Wildlife Refuge and Game Preserve. It is man-by the Refuge Division of the Louisiana Wild and Fisheries Commission. It produces valuable fe habitat in addition to furnishing an environ-that supports marine life of the Gulf of Mexico. range in land use is foreseen.

oding, wetness, low strength, and high shrink-potential are the main limitations for most uses. ty is a limitation for some uses.

mic Soils That Are Frequently Flooded

ls of this group are at elevations of less than 2 above sea level (see figure 2, page 4). They are ct to shallow flooding by the highest normal gulf

They are also subject to occasional deep flooding orm tides. Most of the acreage is in marsh vegeta-ypes. Some is wooded. The two soil associations s group make up 26 percent of the parish.

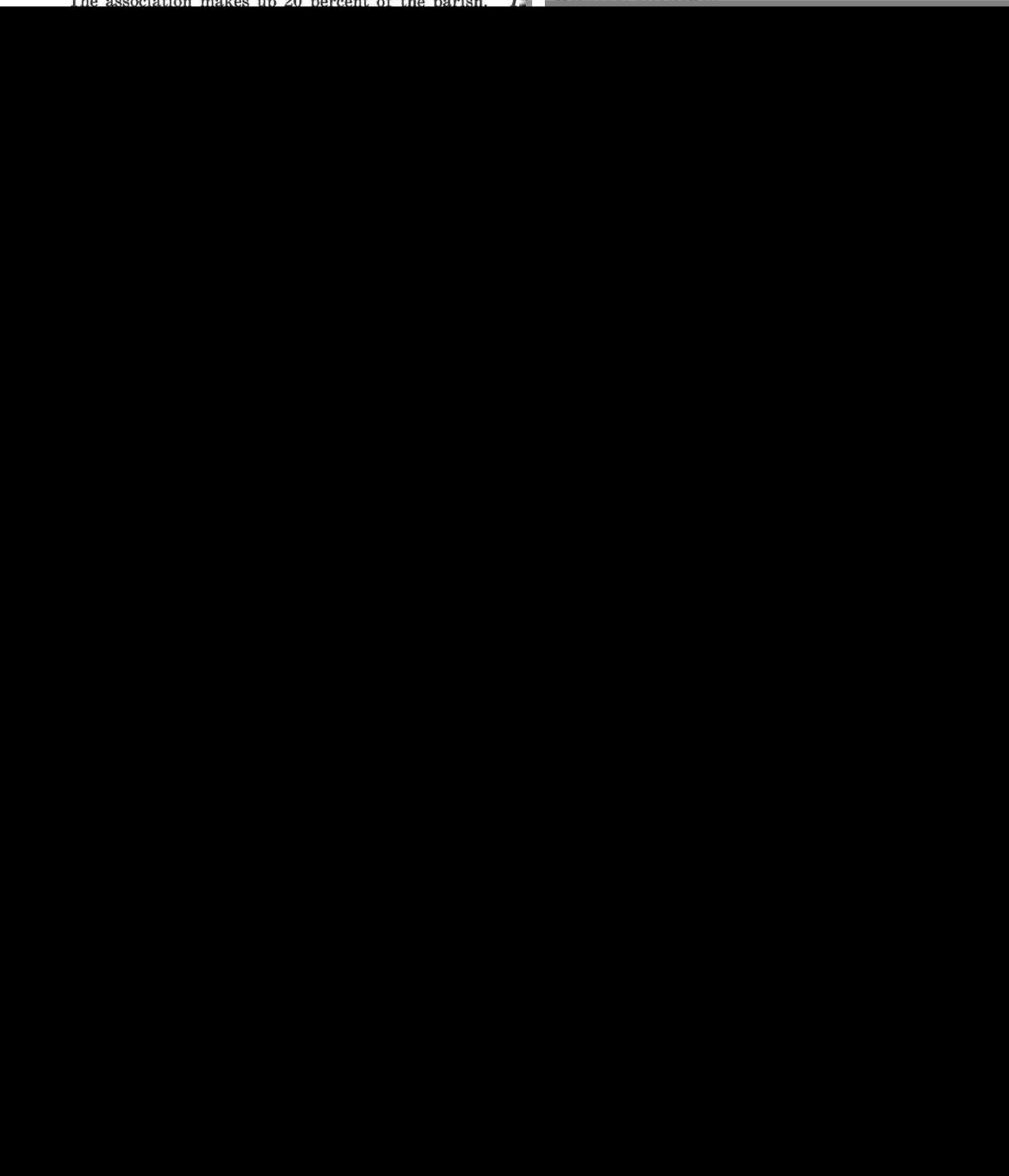
Lafitte association

poorly drained organic soils of the soft marshes

is association is in soft marshes on the mainland n Marsh Island. It is nearly level. Elevations are han 2 feet above sea level. Most of the area is ed much of the time by about 6 inches of water. also subject to occasional deep flooding by storm

Tides range up to 10 feet above normal when cane and tropical storms pass over or near the There are many lakes and tidal channels.

The association makes up 20 percent of the parish. 12. "The association



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Perry soils.
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h. Suitable crops are
ad soybeans. Suitable
udagrass and Pensa-
lagrass is well suited
ite clover, and dallis-
tor soil. Crop residue
d drainage are gen-
cultivated. Extensive
th the surface. Com-
Galvez soil. Capabil-
ility group 2w6 for
soil.

saline, very poorly
permeable. They are
djacent to the terrace
ne time. They formed
subsided below water

surface layer is cov-
c grayish-brown peat
er is black mucky silt
soil is silty clay loam.
f 26 inches and gray

sh vegetation and is
e range.

y peat in an area of
 $\frac{3}{4}$ miles south-south-
of canal; NE $\frac{1}{4}$ SW $\frac{1}{4}$
3-5, table 8:

ayish-brown (10YR 3/2)
about 50 percent rubbed;
a mat of live roots; neu-

ayish-brown (10YR 3/2)
at fiber, about 30 percent
; mineral content about
radual, smooth boundary.
2 2/1) mucky silt loam;
ed; massive; flows easily
ed and leaves small resi-
bout 25 percent organic
mooth boundary.

ray (10YR 3/1) silty clay
lar blocky structure; very
gradual, smooth boundary.
rk gray 10YR 3/1) silty
id coarse, prominent, light
ttles; weak, medium, sub-
astic and sticky; few, soft
ganese; few, thin, patchy
smooth boundary.

gray (5GY 6/1) silty clay
coarse, distinct olive (5Y
n and coarse, subangular
d sticky; few concretions
atchy clay films; neutral;

series are poorly drained and are clayey in the upper part. They are at intermediate local elevations on the Teche natural levee part of the alluvial plain and are primarily in clayey Mississippi River floodplain.

In profile the surface layer is very silty clay loam about 9 inches thick. The top of the subsoil is dark-gray silty clay loam with very dark gray coatings. The lower 34 inches is gray and silty clay loam, and silty clay. It is cultivated. A small acreage is used for m uses.

Soil of Baldwin silty clay loam, in the east of New Iberia on Louisiana Highway 101 south on field road, 84 feet west of edge of road, 84 feet west of edge of sec. 8, T. 12 S., R. 7 E.

Very dark grayish-brown (10YR 3/2) moderate, fine, granular structure; acid; abrupt, wavy boundary.

Dark-gray (10YR 4/1) clay; common, dark yellowish-brown mottles; con- siderable coatings on peds; moderate, me- blocky structure; firm clay films on peds; gradual, wavy boundary.

Dark, olive-gray (5Y 4/2) clay; common, dark yellowish-brown mottles; moderate, medium and blocky structure; firm; common, thin, con- siderable coatings on major peds; continuous, very dark gray on peds; few, fine, black concretions; mildly alkaline; gradual,

Dark, dark-gray (5Y 4/1) silty clay loam, distinct, dark yellowish-brown mottles; moderate, coarse, prismatic structure; firm; clay films on faces of the major peds; clear, wavy boundary.

Dark, gray (5Y 5/1) silty clay; common, strong-brown (7.5YR 5/8) mottles; prismatic structure; firm; few, dark- brown mottles; abrupt, smooth boundary. Dark, gray (5Y 5/1) silt loam; common, yellowish-brown (10YR 5/8) mottles; mildly alkaline.

Very dark grayish-brown or dark gray- loam 6 to 9 inches thick. It is very acid. The B2 horizon is dark-gray, silty or silty clay mottled with brown. It is medium acid to mildly alkaline. It has the same color range as the B2 silty clay, silty clay loam, or silt loam moderately alkaline. The C horizon has the same color range as the B3 horizon.

It is associated with Fausse, Alligator, and other soils. They have a lower clay content than the Fausse soils. They do not have the thick dark gray or black subsoil of the Fausse soils nor the red subsoil typ-

ical (Ba). — This level soil is in the floodplain at intermediate elevations on the Teche natural levee part of the alluvial plain and is clayey in the upper

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is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIIw-6; woodland suitability group 2w9.

Convent Series

Soils of the Convent series are loamy, somewhat poorly drained, and moderately permeable. They are on the Atchafalaya Basin Floodway and the Lake Fausse Pointe parts of the alluvial plain. They formed in recent loamy alluvial sediment deposited by the Atchafalaya River.

In a representative profile the surface layer is dark grayish-brown, stratified very fine sandy loam and silt loam about 6 inches thick. Below the surface layer is stratified, grayish-brown and pale-brown very fine sandy loam, silt loam, and loamy very fine sand.

The Convent soils in this parish are mapped only with Fausse and Newellton soils. Most of the acreage is wooded.

Representative profile of Convent very fine sandy loam, in a wooded area of Fausse-Convent association in the Atchafalaya River Floodway, 1 mile east of center of sec. 27, T. 12 S., R. 9 E., on unnamed island, 150 feet northeast of Texas Company pipeline rock dam:

- A1—0 to 6 inches, dark grayish-brown (10YR 4/2), stratified very fine sandy loam and silt loam; common, medium, faint grayish-brown (10YR 5/2) mottles; moderate, fine, platy structure; firm; faint bedding planes; worm holes and partly decomposed woody material; mildly alkaline; abrupt, smooth boundary.
- C1—6 to 20 inches, grayish-brown (10YR 5/2), stratified loamy very fine sand and silt loam; few, fine, faint, yellowish-brown and dark grayish-brown mottles; weak, fine, platy structure; friable; faint bedding planes; mildly alkaline; clear, smooth boundary.
- C2—20 to 60 inches, stratified pale-brown (10YR 6/3) and dark-brown (7.5YR 4/2) silt loam, very fine sandy loam, and loamy very fine sand; many, medium, faint, grayish-brown (10YR 5/2) and dark yellowish-brown (10YR 3/4) mottles; moderate, medium, platy structure; friable; faint bedding planes; partly decomposed woody material; mildly alkaline; slightly effervescent.

The A horizon is dark grayish-brown, dark-brown and pale-brown silty clay loam, silt loam, very fine sandy loam, and loamy very fine sand. It is neutral to mildly alkaline and is 2 to 10 inches thick. The C horizon is stratified dark-brown, grayish-brown, dark grayish-brown, and pale-brown silty clay loam, loam, silt loam, very fine sandy loam, and loamy very fine sand. It is neutral to mildly alkaline.

Convent soils are associated with Fausse and Newellton soils. They are less clayey throughout the profile and better drained than Fausse soils. They do not have the clayey surface layer typical of Newellton soils.

Coteau Series

Soils of the Coteau series are somewhat poorly drained, moderately slowly permeable, and loamy throughout. They are at the highest elevations on the terrace uplands. They formed in loess.

In a representative profile the surface layer is dark grayish-brown silt loam about 5 inches thick. The subsoil is 65 inches thick. The upper 7 inches is dark yellowish-brown silty clay loam mottled with dark

brown. The lower 58 inches is brown and dark yellowish-brown silty clay loam and silt loam mottled with shades of brown and gray.

Most of the acreage is cultivated. A small part is in pasture, and a small part is used for nonfarm purposes.

Representative profile of Coteau silt loam, in a pasture 1½ miles northwest of Coteau school and church, 70 feet east of the right-of-way of U.S. 90, 50 feet north of fence; SE¼SE¼NW¼ sec. 36, T. 11 S., R. 5 E.

- Ap—0 to 5 inches, dark grayish-brown (10YR 4/2) silt loam; few, fine, faint, light brownish-gray mottles; weak, fine, granular structure; friable; strongly acid; abrupt, wavy boundary.
- B21t—5 to 12 inches, dark yellowish-brown (10YR 3/4) silty clay loam; common, medium, faint, dark-brown (10YR 4/3, 7.5YR 4/4) mottles; weak, medium, prismatic structure parting to moderate, medium, subangular blocky; firm; common fine pores; thin, patchy clay films on peds; common, fine, black and brown concretions; medium acid; clear, irregular boundary.
- B&A—12 to 22 inches, brown (10YR 5/3) silty clay loam; common, medium, faint, dark yellowish-brown (10YR 3/4) mottles; moderate, coarse and medium, prismatic structure parting to moderate, medium, subangular blocky; firm; about 20 percent of horizontal cross section is brittle; thin, discontinuous clay films on peds and in pores; about 15 percent interfingers 2 to 8 millimeters thick of grayish-brown silt loam (A'2) between prisms; few, medium, dark-brown concretions; medium acid; clear, irregular boundary.
- B22t—22 to 43 inches, dark yellowish-brown (10YR 4/4) silty clay loam and light brownish-gray (10YR 6/2) silt loam and silty clay loam in vertical streaks 10 to 30 mm wide; common, medium, distinct, strong-brown (7.5YR 5/6) mottles; moderate, medium and coarse, prismatic structure parting to moderate, medium, subangular blocky; firm; about 30 percent of brownish matrix is brittle; few fine roots inside peds, concentrated roots between peds; common fine and medium pores; distinct, discontinuous clay films on peds and in pores; thin, patchy black stains on peds; medium acid; clear, irregular boundary.
- B3t—43 to 70 inches, dark yellowish-brown (10YR 4/4) silt loam; common, medium, distinct, light brownish-gray (10YR 6/2), continuous vertical streaks of silty clay loam 7 to 13 mm wide; weak, coarse, prismatic structure parting to weak, coarse, subangular blocky; friable; many fine and medium pores and voids; thin, continuous gray clay films in pores and voids; medium acid; thin, patchy silt coats on peds; gradual, wavy boundary.
- C—70 to 100 inches, dark yellowish-brown (10YR 4/4) silt loam; common, fine, distinct, pale-brown and gray mottles around pores and voids; massive; friable; common fine and medium pores and voids lined with clay films; medium acid.

The A horizon is grayish-brown, dark grayish-brown, very dark grayish-brown, brown, or dark-brown silt loam 4 to 12 inches thick. In places where it is very dark grayish-brown, it is less than 4 to 7 inches thick. It is very strongly acid to medium acid. The B horizon is dark-brown, dark yellowish-brown, brown, or yellowish-brown silty clay loam or silt loam mottled with shades of gray or brown. It is very strongly acid to medium acid. The A part of the B & A horizon is grayish brown, light brownish gray, light gray, or pale brown. The brittle part of the Bt horizon makes up 10 to 40 percent of the horizontal cross section.

Coteau soils are associated with Calhoun, Frost, Jeanerette, Memphis, and Patoutville soils. They are better drained and browner than Calhoun and Frost soils. In contrast with Patoutville soils, they have no red mottles

(R 2/2) sapric
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percent rubbed;
when squeezed
ew fine roots;
percent mineral
lary.

ucky silty clay
fingers when
hand; sticky;
radual, smooth

(5Y 3/1) silty
brown mottles;
ll not flow be-
nd sticky; few
ooth boundary.

6/1) silty clay
gray (5Y 4/1)
cture; will not
stic and sticky;

5GY 6/1) silty
olive (5Y 4/4)
olive (5Y 4/4)
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t. The organic
tains thin min-
re dark grayish
very dark gray-
slightly acid to
black or very
clay loam. The
gray silty clay
C horizons are

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Maurepas soils.

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; up to 10 feet
opical storms
nds and tidal
e through the

material; medium acid;

(R 4/1) clay; common, s; weak, coarse, prismatic; slightly acid; gradual,

YR 5/1) clay; many, brown mottles; weak, structure parting to weak, clay; slightly acid; gradual,

(5Y 4/1) clay; many, (7.5YR 3/2) mottles; blocky structure parting very sticky; shiny ped face boundary.

(1) and gray (N 5/0), dark yellowish-brown, subangular blocky, angular blocky; very red; gradual, irregular

clay; common, medium, (5Y 5/4) mottles and lowish-red (5YR 4/8) shiny ped faces; mildly

, dark-gray, very dark brown muck or mucky horizon is dark-gray or clay 4 to 12 inches medium acid to neutral. greenish-gray, or dark is slightly acid to moderate, dark-gray, greenish-gray or silty clay. It is some profiles thin layers of the surface.

th Sharkey, Alligator, not dry out and crack, igator, Iberia, Baldwin, or clay content between Convent soils and are

soils of this mapping, usse Pointe area of level and are clayey, inantly 2 to 4 feet, 100 to 3,000 acres

g unit is more variable in the parish, but it that interpretations of the soils. The 'ausse soils on broad are large areas that muck to a depth of are small areas of dges that have been

scribed as represented much of the time throughout the year. oil very slowly. The 1/2 foot above the anic-matter content available phosphorus, . Flooding, wetness, and low strength are

Most of the acreage is wooded and used as wildlife habitat. Areas that adjoin cropland along Bayou Teche are being cleared, leveed, and drained by pumping and are used for growing rice and sugarcane. Some areas have been developed for the commercial production of crawfish.

The soils are not suited to cultivated crops or pasture plants unless protected from flooding. Capability unit VIIw-1; woodland suitability group 3w6.

Fausse-Convent association (FC).—This mapping unit of clayey and loamy soils is in broad depressions and on low, narrow natural levees on the Atchafalaya Basin Floodway of the alluvial plain. It is under 2 to 8 feet of freshwater most years from December through June and receives annual deposits of sediments from floodwater of the Atchafalaya River. The elevation is dominantly 2 to 4 feet above sea level. Slopes are less than 1 percent. Tracts range from 160 to 2,000 acres in size.

The composition of this mapping unit is more variable than that of any other unit in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 50 percent Fausse soil and 25 percent Convent soil. Included in mapping are small areas of Newellton soils and a small area of soils that have a loamy surface layer and a clayey subsoil. Also included are clayey soils that have a gray or dark-brown surface layer and a subsoil that is mottled with olive gray, reddish gray, brown, dark reddish brown, and dark brown.

The Fausse soil is mainly in swamps between ridges of natural levees. Its profile differs from the one described as representative of the series in having a 5- to 8-inch surface layer of dark-gray or dark grayish-brown, semifluid clay mottled with yellowish red. The soil is wet throughout the year. The water table fluctuates from 6 inches above to 6 inches below the surface. The soil is generally moderate in organic-matter content and high in available phosphorus, potassium, and calcium. Generally there is a complete ground cover of water hyacinth and delta arrowhead. The woodland is mostly black willow. The flooding, wetness, and low strength of both soils and the very high shrink-swell potential of the Fausse soil are the main limitations.

The Convent soil is on low ridges of natural levees. It has the profile described as representative of the series. The water table fluctuates between depths of 1½ and 3 feet. The soil is generally moderately low in content of organic matter and high in available phosphorus, potassium, and calcium. Generally there is a complete ground cover of bushes, sedges, and vines. The woodland is eastern cottonwood, American sycamore, and green ash on the oldest deposits and black willow on the most recent deposits. Flooding is the main limitation.

All the acreage is part of the Atchafalaya Basin Floodway. It is used for woodland, recreation, and wildlife habitat. Without flood protection, the soil is not suited to crops or pasture. Capability unit VIIw-1; woodland suitability group 3w6 for Fausse soil and 1w5 for Convent soil.

Fausse soils (FE).—This mapping unit of nearly level soils is mainly in swamps in the Atchafalaya Basin Floodway of the alluvial plain. It is flooded much of the time by freshwater. From December through June it is continuously under 2 to 8 feet of water. The elevation is dominantly 2 to 4 feet above sea level. The soils are clayey throughout and occur in a single delineation in a broad area in the eastern part of the Atchafalaya Basin Floodway. They receive annual deposits of clayey sediment from the Atchafalaya River.

The composition of this mapping unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 75 percent Fausse soil, 15 percent soils in low depressions that are semifluid to a depth of 20 inches, and 5 percent Sharkey soil on low ridges.

In large areas the profile of the Fausse soil differs from the one described as representative of the series in having a surface layer of semifluid, mucky clay. The water table fluctuates within a depth of 1½ feet at all times. The soil is high in content of organic matter and high in available phosphorus, potassium, and calcium. Generally there is a complete ground cover of water hyacinth and delta arrowhead. The woodland is mostly baldcypress and water tupelo. Flooding wetness, very high shrink-swell potential, and low strength are the main limitations.

All the acreage is part of the Atchafalaya Basin Floodway. It is also used for woodland, recreation, and wildlife habitat. Unless protected from flooding, it is not suited to crops or pasture. This soil is the main source of natural habitat for deep-water crawfish. Capability unit VIIw-1; woodland suitability group 3w6.

Frost Series

Soils of the Frost series are poorly drained, slowly permeable, and loamy throughout. They are in depressions in the terrace uplands and on the foot slopes of the salt domes of the parish. They formed in loess.

In a representative profile the surface layer is very dark grayish-brown and black silt loam about 12 inches thick. Below this is gray silt loam about 4 inches thick. The subsoil is gray silty clay loam mottled with yellowish red.

Most of the acreage is cultivated. A small part is wooded or pastured, and a small acreage is used for homesites, recreation, and other nonfarm purposes.

Representative profile of Frost silt loam, in a sugarcane field three-fourths of a mile north of Coteau, 210 feet east of drainage ditch, 90 feet south of field road; NE¼SW¼ sec. 25, T. 11 S., R. 5 E.

Ap—0 to 6 inches, very dark grayish-brown (10YR 3/2) silt loam; moderate, fine, granular structure; friable; very strongly acid; abrupt, wavy boundary.

A1—6 to 12 inches, black (10YR 2/1) silt loam; few, fine and medium, distinct, gray (10YR 5/1) mottles; compound weak, medium, prismatic and weak, medium, platy structure; firm, discontinuous, distinct clay films on faces of pedis and in pores; few fine concretions

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dark-brown (7.5YR 4/4) silt loam; blocky structure; firm; medium boundary.

reddish-brown (2.5YR 4/4) silty and moderate, medium, prismatic, subangular blocky structure; thin, reddish-brown coatings of silt continuous clay films on faces of concretions of ferromanganese; medium, wavy boundary.

reddish-brown (5YR 4/4) silt loam; light-brown (2.5YR 3/4) silty clay; compound moderate, coarse, prismatic, medium, subangular blocky structure; clay films on faces of pedis; concretions of ferromanganese; moderate, wavy boundary.

reddish-brown (5YR 4/4) silt loam; angular blocky structure; firm; discontinuous on ped faces; common fine concretions of ferromanganese; moderately alkaline; wavy boundary.

yellowish-red (5YR 4/6) silt loam; structure; firm; bedding planes; stains of ferromanganese and lime; slightly effervescent.

dark brown, reddish brown, or dark gray to 11 inches thick. It is very strongly colored. B horizon is dark reddish brown, light brown. It is generally stratified in clay loam, loam, and silty clay loam horizons. The B horizon is medium acid

associated with Perry, Galvez, and is better drained and redder than it has the clayey subsoil typical of it.

is, gently undulating (Ga).—The A unit are on narrow parallel ridges adjacent and parallel to Bayou Lafourche. Slopes are mostly 1 to 3 percent in two large tracts.

About 70 percent Gallion soils are included in mapping are areas of Perry soils that are a few areas of soils that have been smoothed. On about 30 percent of the swales have been smoothed.

ridges that are 100 to 200 feet higher than the swales. Water and oil moderately fast. The sea level is generally more than 5 feet above ground.

easy to plow and can be worked throughout the range of moisture content. It is low in organic-matter content, available phosphorus, potassium, and moisture is available to plants. The surface tends to crust. Low strength horizons.

swales that are generally 50 to 100 feet wide and air move through the soil. It is wet for long periods during the seasonal high water table is at a depth of 2 feet during the month of April.

moderately difficult to plow, but

can be worked throughout a fairly wide range of moisture content. It is generally moderately low in organic-matter content and low in available phosphorus and potassium. Available calcium is generally medium. The soil shrinks and cracks when dry. Plants sometimes lack adequate moisture during dry periods in summer and fall. Wetness, low strength, and high shrink-swell potential are the main limitations.

Most of the acreage is used for homesites and other nonfarm purposes. A small acreage is cultivated, and a small acreage is pastured. Sugarcane is the principal crop.

The soils are suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, corn, peppers, okra, soybeans, and sweet potatoes. Suitable pasture plants are tall fescue, common bermudagrass, Pensacola bahiagrass, white clover, southern wild winter pea, and vetch. Land smoothing or drainage on Perry soils and land smoothing and erosion control on the Gallion soils are needed if the area is cultivated. Complete fertilization is needed for most crops and pastures. Crop residue management is needed in cultivated areas. Drainage is needed for improved pasture on Perry soils. Capability unit IIIw-5; woodland suitability group 2o4 for Gallion soil and 2w6 for Perry soil.

Galvez Series

Soils of the Galvez series are somewhat poorly drained, moderately slowly permeable, and loamy throughout. They are at the highest local elevations on the Bayou Teche natural levee part of the alluvial plain. They formed in loamy Mississippi River alluvium.

In a representative profile the surface layer is mainly dark grayish-brown silt loam about 9 inches thick. The upper 12 inches of the subsoil is grayish-brown silty clay loam mottled with shades of brown. The lower 39 inches is grayish-brown and olive-gray silt loam mottled with shades of brown.

Most of the acreage is cultivated. A large acreage is used for homesites and other nonfarm purposes.

Representative profile of Galvez silt loam, in a sugarcane field 3 miles east of Loreauville at Mestayer, 500 feet north of highway, 150 feet south of split ditch; Spanish Land Grant sec. 39, T. 11 S., R. 8 E.

Ap1—0 to 6 inches, dark grayish-brown (10YR 4/2) silt loam; strong, fine, granular structure; friable; concretions of ferromanganese; medium acid; abrupt, wavy boundary.

Ap2—6 to 9 inches, grayish-brown (10YR 5/2) silt loam; moderate, coarse, platy structure; firm; dark brown on faces of peds; few fine concretions of ferromanganese; medium acid; abrupt, wavy boundary.

B21t—9 to 14 inches, grayish-brown (10YR 5/2) silty clay loam; many, fine, distinct, dark yellowish-brown and strong-brown mottles; moderate, coarse, prismatic structure; firm; few fine concretions of ferromanganese; thick, continuous clay films on faces of peds; medium acid; gradual, wavy boundary.

B22t—14 to 21 inches, grayish-brown (2.5Y 5/2) silty clay loam; many, fine, distinct, dark-brown mottles; moderate, medium, prismatic structure; firm; few

vial plain and in low areas
formed in clayey Missis-

the surface layer is black
hick. The subsoil is dark
y clay mottled with shades

tivated. A small acreage is
pastured, and a small acre-
poses.

beria silty clay, in a sugar-
miles east of New Iberia,
1.8 miles east of junction
, 1.3 miles north on access
st of Texaco well No. 35
Grant sec. 26, T. 12 S.,

(10YR 2/1) silty clay; strong,
; friable; slightly acid; abrupt,

(10YR 2/1) silty clay; weak,
structure; very firm; neutral;
ary.

rk grayish-brown (2.5Y 4/2)
inct, olive-brown mottles and
dark-gray mottles; moderate,
ture parting to moderate, me-
cky; very firm; many, small,
few large slickensides that do
ltely alkaline; gradual, wavy

gray (5Y 4/1) clay; common,
brown (7.5YR 4/4) mottles;
c structure parting to moder-
lar blocky; very firm; moder-
wavy boundary.

gray (5Y 4/1) clay; common
brown (7.5YR 4/4) mottles;
ic structure; very firm; mod-
al, smooth boundary.

(5Y 5/1) silty clay loam; com-
owish-brown mottles; massive;
ne.

or very dark gray silty clay or
nches thick. It is slightly acid
horizon is dark grayish-brown,
ray, light olive-gray, dark-gray.
It has mottles in shades of
al to moderately alkaline. Some
of calcium carbonate. The B3
lty clay loam, or silt loam.

l with Alligator, Baldwin, Shar-
e soils. They are more alkaline
have a thicker dark-colored
n and Sharkey soils. They are
a Loreauville soils.

uently flooded (1a). — This
il and is frequently flooded
areas on the terrace up-
00 to 500 acres.

ers from the one described
ies in having a silty clay
nches thick.

periods. The water table is
depth of 1½ feet the year
ve through the soil very
content is high. Available
is low, and available cal-

oam to a depth of
brown and olive-
of gray and olive
retions of calcium

d. A large part is
farm purposes. A

ette silt loam, in a
New Iberia, one-
ne-fourth mile east
ce corner, 25 feet
sec. 16, T. 12 S.,

1/1) silt loam; strong,
friable; few fine con-
neutral; abrupt, wavy

2/1) silt loam; weak,
ucture; firm; few fine
neutral; abrupt, wavy

10YR (4/1) silty clay
prismatic and strong,
structure; firm; black
ous clay films on peds;
lciium carbonate; few
nese; moderately alka-

rown (2.5Y 5/2) silty
medium, prismatic and
structure; firm; dark-
concretions of calcium
s clay films on peds;
anganese; moderately
ry.

rown (2.5Y 5/2) silty
; dark-gray and light
e, medium, prismatic
rtly dark gray; many
arbonate; thin, discon-
ne concretions of fer-
caline; abrupt, wavy

rown (2.5Y 5/2) silt
t olive-brown and few,
l strong, coarse, pris-
c structure; firm; ped
inuous clay films; com-
anganese; moderately
y.

(5Y 5/2) silt loam;
ve-brown mottles; com-
tic and weak, fine, pris-
s partly gray; distinct,
non fine concretions of
caline.

dark gray silt loam 7
to mildly alkaline. The
black, very dark gray,
yish brown, olive gray,
brown. The Bt horizon
ine and is 1 to 10 per-
s of calcium carbonate.

with Patoutville, Cal-
hey are darker in the
s. They are darker and
u soils. They are less

s somewhat poorly
eable soil is loamy

generally moderate in organic-matter available phosphorus and potassium, available calcium. Adequate moisture is present in most years. Wetness and low fertility are the main limitations.

Soil is on the upper part of the slope. High water table fluctuates between 1 and 3 feet during the period December

soil is easy to plow and can be worked over a wide range of moisture content, but the soil is hard to break through the crust. The soil is generally moderately low in organic-matter content and low in available potassium, and calcium. Adequate moisture is available to plants in most years. Wetness and low fertility are the main limitations.

Land is used for homesites and other purposes. A small acreage is used for crops. Corn is the main crop.

Soil unit provides some of the best results in the parish. Because the slope is 3 to 8 percent, the soils are not well suited to sugarcane or other crops. Crops are corn, peppers, okra, sweet potatoes, and beans. Suitable pasture plants are Pensacola bahia, common bermudagrass, improved tall fescue, white clover, southern wildflower, and vetch. Tall fescue, however, is not well suited to the Coteau soil. Contour farming is recommended to reduce runoff and reduce erosion. Crop rotation is needed in cultivated areas. Common land is needed for most crops and pasture.

IIIe-1; woodland suitability group 2w5 soil and 1w8 for Coteau soil.

Lafitte series are organic, very poorly drained, and rapidly permeable. They are in soft water swamps on mainland and Marsh Island and are common at low tide. They are saline. They formed accumulations of herbaceous organic material. Representative profile the upper 16 inches is organic material. Below this is 116 inches grayish-brown, dark reddish-brown, very dark grayish-brown, almost completely decomposed, organic material. The underlying material is

Land is in marsh vegetation and probably is a habitat.

Soil profile of Lafitte peat, in an area of 100 acres in a marsh 2½ miles south-southeast of the mouth of the Intracoastal Waterway, 1000 feet north of Intracoastal Waterway, east of Bayou Petite Anse, 100 yards from the named bayou, northwest part of T. 14 N. 10E. 10W, La-23-4, tables 8 and 9:

0 to 16 inches, dark-brown (10YR 4/3) hemic material; about 44 percent fiber, 34 percent rubbed; massonisticky; many live roots; herbaceous fiber; 4 percent mineral content; slightly acid; gradual boundary.

16 to 53 inches, very dark grayish-brown (10YR 2/2) sapric material; very dark brown (10YR 2/2)

ig shrinks to about half the soil subsides further because es are most rapid during the drained, it continues to sub-inch per year. The lower pid the loss. Water and air or clayey substratum moder-organic-matter content, wet- e the main limitations. Salin- ie uses.

rovides wildlife habitat. These deer, rabbit, geese, muskrat, d associated species, in addi- vironment that supports ma- lexico. Vegetation is dense if rs. Intermediate and brackish inant (3). The vegetation is dgrass and needlegrass rush lt marsh bulrush, olney bul- dgrass, saltgrass, and hairy-

nity, low strength, and sub- main limitations. These soils ial production of most plants. y to recreation, wildlife habi- . Low level weirs for water trolled burning, and in places ve wildlife habitat. Capability d in a woodland suitability

e series are somewhat poorly y permeable, and loamy. They elevations on the Bayou Teche alluvial plain. They formed in alluvium.

ofile the surface layer is very : 8 inches thick. The upper 16 grayish-brown silty clay loam coatings on faces of peds. The h-brown silt loam. The lower e-gray loam.

cultivated. A small acreage is eage is used for homesites and

of Loreauville silt loam, in a niles northeast of Loreauville, Louisiana Highway 345; sec.

dark gray (10YR 3/1) silt loam; nular structure; friable; few, fine, mildly alkaline; abrupt, smooth

rayish brown (2.5Y 5/2) silty clay chy, very dark gray coatings on mon, medium, distinct, very dark YR 3/2) mottles; weak, coarse, : parting to moderate, medium, sub- rm; few, fine, black concretions; ncretions of calcium carbonate as diameter::; thick, nearly continuous,

on faces of peds; calcareous in spots; mildly gradual, wavy boundary.

3 inches, grayish-brown (2.5Y 5/2) silt loam; medium, distinct, light olive-brown (2.5Y 5/4) weak, coarse, prismatic structure parting to medium, subangular blocky; firm; thin, nearly clay films on faces of peds; few nodules in carbonate; mildly alkaline; clear, wavy

30 inches, olive-gray (5Y 5/2) loam; many, distinct, light olive-brown (2.5Y 5/4) mottles; coarse, prismatic structure; firm; thin, patchy, clay films on faces of peds; mildly alkaline.

Horizon is black or very dark gray silt loam 5 inches thick. It is slightly acid to mildly alkaline. It is neutral to moderately alkaline. The B2 horizon is gray loam or silty clay loam. The B3 horizon is gray loam, very fine sandy loam, or silt loam. These soils are associated with Galvez, Iberia, and Iberia. They have a darker colored surface layer. They do not have the clayey subsoil of Galvez and Iberia soils.

Loam (Lo). — This nearly level, somewhat loamy soil is at intermediate local elevation. Bayou Teche natural levee part of tract. Tracts range from 100 to 500 acres. In this soil in mapping are small areas of Galvez and Iberia soils and small areas of Maurepas that have a thicker dark-colored surface. There are some low areas that are occa-

1. Water and air move through the soil freely. The seasonal high water table fluctuates at depths of 1 foot and 2½ feet during winter through April.

2. Easy to plow and can be worked throughout a range of moisture content. It is moderate in organic matter content, low in available phosphorus, and high in available calcium. Nitrogen is available to plants in most years. Soil strength are the main limitations.

3. Acreage is cultivated. Sugarcane is the principal crop. A small acreage is in pasture, and a small acreage is used for homesites and other nonfarm

4. Limited to most of the crops and pasture in the parish. Suitable crops are sugarpeppers, okra, and soybeans. Suitable crops are Pensacola bahiagrass, improved common bermudagrass, tall fescue, southern wild winter peas, and vetch. Complete fertilization are needed for pastures. Crop residue management is needed in some areas. Land smoothing and irrigation for rice. Capability unit IIw-3; wood-group 1w5.

5. Maurepas series are very poorly drained, silty, and organic. They are in tidal flat marshes in the mainland. They have accumulations of woody organic material.

6. Representative profile the organic material is

102 inches thick. The upper 12 inches is dark brown. Below this is 90 inches of almost completely decomposed dark-brown organic material that contains many wood fragments, logs, and stumps. The underlying material is silty clay.

Most of the acreage is wooded. A small acreage is in marsh vegetation.

Representative profile of Maurepas muck, in an area of Maurepas association in a swamp 3¾ miles south of Lydia, 1 mile north of junction of Stump Bayou and Little Valley Canal, 200 feet west of canal; NE¼SE¼ sec. 47, T. 13 S., R. 7 E., S69 La-23-3, table 8:

Oa1—0 to 12 inches, dark-brown (7.5YR 3/2) sapric material; dark reddish-brown (5YR 3/2) pressed or rubbed; about 50 percent fiber, about 7 percent rubbed; weak, fine, granular structure; nonsticky; many live roots; dominantly woody fiber; fine, partly decomposed fragments of wood; about 30 percent mineral content; after exposure to air for 15 minutes color changes to very dark gray (10YR 3/1); medium acid; gradual, smooth boundary.

Oa2—12 to 27 inches, dark-brown (7.5YR 3/2) sapric material; dark reddish-brown (5YR 3/2) pressed or rubbed; about 8 percent fiber, about 1 percent rubbed; weak, fine and medium granular structure; squeezes easily between fingers; nonsticky; common roots; dominantly woody fiber; common, partly decomposed logs, stumps, and fragments of wood; about 35 percent mineral content; few fragments of charcoal; slightly acid; gradual, smooth boundary.

Oa3—27 to 102 inches, dark-brown (7.5YR 3/2) sapric material; dark reddish-brown (5YR 3/2) pressed or rubbed; about 15 percent fiber, about 5 percent rubbed; weak, coarse, granular structure; squeezes easily between fingers; nonsticky; common roots; dominantly woody fiber; many logs and fragments of wood in varying degrees of decomposition; about 40 percent mineral content; slightly acid; gradual, smooth boundary.

IICg—102 to 108 inches, greenish-gray (5GY 5/1) silty clay; massive; squeezes easily between fingers; few partly decomposed fragments of wood; neutral.

Salinity is low to moderate. The organic material is 51 to more than 120 inches thick. The upper 12 inches is dark brown or dark reddish brown and has a rubbed fiber content of 2 to 10 percent. Mineral content is 20 to 30 percent. Below a depth of 12 inches the organic material is dark brown, dark grayish brown, or dark reddish brown and has a rubbed fiber content of 1 to 10 percent. Mineral content is 25 to 40 percent. The IIA and IIC horizons are silty clay loam, silty clay, or clay.

Maurepas soils are associated with Lafitte and Delcomb soils. They contain many woody fragments that do not occur in the Lafitte and Delcomb soils.

Maurepas association (MA). — The soils of this mapping unit have a thick layer of organic material that contains many logs, stumps, and fragments of wood. They are level and occur as broad areas in tidal swamps and soft marshes in the mainland. They are flooded much of the time with about 6 inches of water. These soils occur in one tract. The elevation is less than 2 feet above sea level.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 90 percent Maurepas soils. Included in mapping are small areas of Delcomb and Lafitte soils.

silt loam;
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ture; firm;
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opping or

partly decayed leaves and twigs.
dark-brown (7.5YR 4/2) clay; common, gray mottles; moderate, medium, subangular structure; firm; slightly acid; abrupt, indistinct boundary.

dark reddish-gray (5YR 4/2) clay; /1) coatings on faces of peds; moderate, angular blocky structure; firm; neutral; abrupt, smooth boundary.

dark reddish-gray (5YR 4/2), grayish-brown (5YR 5/2), and dark-brown (7.5YR 4/2) medium, platy structure; firm; moderate; calcareous; abrupt, smooth boundary. inches, gray (10YR 5/1), dark-brown, and brown (7.5YR 4/4), very fine sandy loam, very fine sand; weak, thin, platy structure; moderately alkaline; abrupt, smooth

inches, brown (7.5YR 5/4), dark-brown, reddish-brown (5YR 4/3), and gray clay, silt loam, and very fine sandy loam, thin, platy structure; firm; stratification planes present; moderately alkaline;

inches, reddish-brown (5YR 4/3) and dark gray (5GY 4/1) clay; firm; moderately alkaline.

The loamy IIC horizon is 14 to 20 inches. The dark-brown, dark gray, or very dark gray 1 to 5 inches thick. It is slightly acid to neutral. The horizon is dark reddish-gray, dark-brown, silty clay mottled with gray. It is slightly alkaline. The C horizon is dark reddish-brown, grayish-brown, and dark grayish-brown. It is neutral to moderately alkaline. The horizon is dark-brown, brown, and reddish-brown sandy loam, loamy very fine sand, and silty clay, thin layers of clay are in the IIC

soils in this parish are outside the range of the Newellton series because they have thin reddish-brown, and management, however, are the Newellton soils.

are associated with Convent soils. They are in the upper part than those soils.

t association, frequently flooded
This unit of nearly level, clayey and silty loam, the Lake Fausse Pointe part of the parish on natural levees and low areas of the Atchafalaya River by the distributary channels. It is protected by the Atchafalaya Basin Floodway. It is protected, however, by local runoff.

This unit is more variable than the Newellton units in the parish, but it has been mapped on the basis of interpretations can be made from the use of the soils. The mapping of recent Newellton soils and 15 percent of the area included in mapping are small areas on high ridges that

are in low areas between natural levees. The water table is very slow. About 80 percent of the area is flooded by local runoff. The remainder of the time. The water table depths of 6 inches and 2 feet the water and air move through Newellton soils. The organic-matter content is medium. The available phosphorus, potassium, and calcium are low. The high shrink-swell potential, and the main limitations.

ny, fine, distinct, yellowish-brown mottles; weak, rse, prismatic structure; firm; thick, continuous, k-gray clay films in vertical root channels; discontinuous, distinct clay films on faces of peds; neutral; gradual, wavy boundary.
to 80 inches, grayish-brown (2.5Y 5/2) silt loam; ny, medium, prominent, dark yellowish-brown (YR 4/4) mottles; massive; neutral.

A horizon is 6 to 16 inches thick and very strongly medium acid. The B21t horizon is dark grayish grayish brown, or pale brown and is 4 to 13 inches t has yellowish-red, red, yellowish-brown, or dark h-brown mottles. Faces of peds are dark grayish or very dark grayish brown. The B21t horizon is acid to neutral. The B22t horizon is grayish-brown ownish-gray, or light-gray silt loam or silty clay at has many to common mottles in shades of brown. ghtly acid or neutral. The B3 horizon is light olive-ght brownish-gray, or gray silt loam or silty clay at has many, fine, medium, and coarse, yellowish-mottles. It is slightly acid to neutral.

itville soils are associated with Jeanerette, Frost, n, and Coteau soils. They are better drained and r than Frost and Calhoun soils and do not have the y acid subsoil typical of those soils. They do not he thick black surface layer typical of Jeanerette hey have darker coatings on the faces of peds in er part of the subsoil than Coteau soils and do not e very strongly acid subsoil typical of those soils.

le silt loam (Pa). — This soil is in tracts of res at intermediate and high local elevations ace uplands. It is somewhat poorly drained ny throughout. The slope is no more than

with this soil in mapping are small areas Calhoun, Frost, and Jeanerette soils. Also e large areas of a soil that does not have red the upper part of the subsoil.

s slow. Water and air move through the soil e soil is wet for long periods, mostly late in early in spring. The seasonal high water ates between depths of $\frac{1}{2}$ foot and 3 feet period December through April. The soil is ow and can be worked throughout a wide moisture content. It is generally moderately anic-matter content and low in available i, potassium, and calcium. Adequate mois- ilable to plants in most years. Wetness and ch are the main limitations.

the acreage is cultivated. Sugarcane is the rop. A small part is in pasture. A small part homesites and other nonfarm purposes.

is suited to most of the crops and pasture wn in the parish. Suitable crops are sugar-corn, peppers, okra, sweet potatoes, and soy-table pasture plants are Pensacola bahia-mon bermudagrass, white clover, southern r peas, and vetch. Complete fertilization is most crops and pastures. Crop residue man- needed in cultivated areas. Land smoothing tion are needed for rice. Capability unit odland suitability group 1w8.

ies

the Perry series are poorly drained, are very

slowly permeable, and have a clayey subsoil. They are in narrow, shallow depressions that are parallel and adjacent to Bayou Teche. They formed in clayey Red River alluvium.

In a representative profile the surface layer is dark grayish brown silty clay loam about 10 inches thick

8) and are frequently flooded. They formed in clayey alluvial and marine sediment.

In a representative profile the surface is covered by 1 inch of organic material. The surface layer is dark-gray clay about 8 inches thick. Below this is 9 inches of gray silty clay and thin

as thin layers of
 vegetation and is
 y in an area of
 rsh Island, one-
 feet southwest
 R. 6 E.

0YR 3/1) mucky
 50 percent rubbed;
 mineral squeezes
 is in hand; many
 gradual, smooth

Y 3/1), semi-fluid
 y between fingers;
 th boundary.
), semi-fluid clay;
 gers leaving hand
 smooth boundary.
 uck and gray (5Y
 re; squeezes easily
 ; moderately alka-

semifluid clay; mas-
 ers, leaving hand
 smooth boundary.
 Y 6/1), semifluid
 en fingers, leaving

izon is 2 to 8 inches
 ay, dark-gray, or
 ky silty clay loam.
 nd greenish-gray,
 k muck and gray,

lacedo and Lafitte
 ey do not have a
 the thick organic

aline soils have
 y flooded. They
 f Marsh Island.
 less than 2 feet

re variable than
 but it has been
 tations can be
 s. The mapping
 ils. Included in
 soils at slightly
 small areas of

flooding by the
 also subject to
 es. Tides range
 icane and tropi-
 sh. Many small
 The water table
 ove the surface
 r and air move
 ed, the soils on
 o not close when
 igh shrink-swell
 ain limitations.

ek grazing. Most

(Sh).— This nearly level, poorly
ayey throughout. It is in low areas on
natural levee part of the alluvial plain.
m 200 to 500 acres.

this soil in mapping are large areas
that have a surface layer that is very
d a subsoil that is strongly acid or very
a depth of 20 inches. Also included are
Alligator, Baldwin, Iberia, and Perry
ow areas that are occasionally flooded.
this soil differs from the one described
e of the series in having a very dark
er that is 6 to 9 inches thick. Water
rough the soil very slowly. Runoff is
wet for long periods late in winter and
seasonal high water table is at the
n a depth of 2 feet during the period
gh April.

rd to plow and can be worked within
ange of moisture content. It becomes
wed. It shrinks and cracks when dry.
s lack adequate moisture during dry
er and fall. The soil is generally mod-
-matter content and somewhat low in
porus, potassium, and calcium. Wet-
k-swell potential, and low strength are
ions.

creage is cultivated. Sugarcane is the
A small acreage is used for woodland,
farm purposes.

ited to most of the crops and pasture
the parish. Suitable crops are sugar-
ers, okra, and soybeans. Suitable pas-
all fescue, Pensacola bahiagrass, com-
ass, white clover, vetch, southern wild
d red clover. Drainage and complete
generally needed for most crops and
esidue management is needed in culti-
d smoothing and irrigation are needed
lity unit IIIw-1; woodland suitability

occasionally flooded (Sk).— This near-
trained soil is clayey throughout. It is
ional flooding from local runoff. It is
the Bayou Teche natural levee part of
n. The elevation is dominantly 3 to 5
evel. Tracts range from 200 to 1,000

this soil in mapping are small areas
ia, and Fausse soils. Also included are
oded areas of Sharkey soils at higher

the profile described as representative
noff is slow. The soils at the lower ele-
ed more than 2 years in 5, from June
per. Water and air move through the

The soil is wet for long periods late
spring. The seasonal high water table
or within a depth of 2 feet during the
through April.

an important source of nitrogen. It reduces rate of water intake, reduces surface erosion, and reduces soil loss through tillage. The latter can best be supplied by manure. If the cropping system permits, nitrogen can also be supplied by including perennials in the rotation and by using

soil should be tilled only enough to prevent weeds. Excessive tillage is a problem in loamy soils and causes the formation of a compact layer, or plowpan. Compaction reduces water storage, and root development. Deep plowing breaks up the compact layer and increases yields on loamy soils of the region, however, should not be excessive on clayey soils, and it has not been found to be beneficial for sugarcane on silty soils of the ter-

region. Many of the soils in the parish need drainage to make them more suitable for the cultivation of rice. Drainage is not suitable for all soils, as the soils are too slowly permeable. The most commonly used system consists of a system which combines row drains and lateral ditches with parallel lateral ditches and row drains. Spacing of lateral ditches and row drains depends on the slope. Clayey soils have less slope and require closer spacing. A system of precision farming adapts many of the lateral ditches to the contour of the loamy soils and, to lesser extent, to the clayey soils. Crowning is used to improve drainage on the clayey soils. This is done by shaping the land from the center benches. Soils at low elevations used for rice are protected from flooding by the Floodway protection levee system and by a pump-off drainage system. The system used is like the one used for the drainage of the rice fields. The ditch pattern used for rice lacks the levee system used for rice. The soils used for rice are smoothed, and the water is through ditches in the lows and benches.

Conservation.—Some of the soils in the parish are subject to wind and gully erosion if they are clean. Conservation of soil is needed to prevent loss of soil. Conservation terraces, parallel terraces, conservation waterways, minimum tillage, mulching, stripcropping, and overfall are used to reduce the soil loss.

Rotation.—Three crops of sugarcane are raised from each planting. Sugarcane is raised as a row crop. After the third crop of sugarcane is planted to soybeans for green manure for weed control. The supply of nitrogen in the soil can be maintained even when no plant residue is the only organic matter added into the soil. Turning under a crop, for example, helps maintain the nitrogen. In addition, it supplies about 100 lb of nitrogen and controls annual grasses and weeds (24).

the eight classes in the capability system and the classes and units in Iberia Parish are described in the list that follows: The unit designation for each in the parish is given in the Guide to Mapping Units.

Class I. Soils have few limitations that restrict their use. (None in Iberia Parish.)

Class II. Soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.

Subclass IIw. Soils moderately limited by excess water.

Unit IIw-1. Somewhat poorly drained, nearly level loamy soils.

Unit IIw-2. Somewhat poorly drained, nearly level loamy soils that are low in sand content.

Unit IIw-3. Somewhat poorly drained, nearly level alkaline loamy soils.

Class III. Soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.

Subclass IIIe. Soils subject to severe erosion if cultivated and not protected.

Unit IIIe-1. Well-drained and somewhat poorly drained, sloping loamy soils.

Subclass IIIw. Soils severely limited for cultivation by excess water.

Unit IIIw-1. Poorly drained, nearly level clayey soils.

Unit IIIw-2. Poorly drained, nearly level, very strongly acid clayey soils.

Unit IIIw-3. Poorly drained, nearly level soils that have a loamy surface layer and a clayey subsoil.

Unit IIIw-4. Poorly drained clayey soils and somewhat poorly drained loamy soils.

Unit IIIw-5. Well-drained loamy soils and poorly drained clayey soils.

Unit IIIw-6. Poorly drained, nearly level loamy soils.

Unit IIIw-7. Poorly drained, gently sloping loamy soils.

Class IV. Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.

Subclass IVw. Soils very severely limited for cultivation due to excess water.

Unit IVw-1. Occasionally flooded clayey soils.

Class V. Soils are subject to little or no erosion but have other limitations, impractical to remove, that limit their use largely to pasture or range, woodland, or wildlife food and cover.

Subclass Vw. Soils limited chiefly by flooding.

Unit Vw-1. Frequently flooded clayey soils.

Unit Vw-3. Frequently flooded clayey and loamy soils.

Class VI. Soils have severe limitations that make them generally unsuited to cultivation and limit their

to pasture or range, woodland, or wildlife cover.

Vle. Soils severely limited, chiefly by erosion unless protective cover is maintained.

Vle-1. Well-drained, hilly loamy soils. Soils have very severe limitations that unsuit them to cultivation and restrict their use to range, woodland, or wildlife food and cover.

VIIw. Soils very severely limited by erosion and flooding.

VIIw-1. Clayey and loamy soils that are flooded most of the time.

VIIw-2. Saline clayey and loamy soils that are flooded most of the time.

Soils have limitations that preclude their use for commercial crop production and restrict their use to recreation, wildlife food and cover, water conservation, and esthetic purposes.

VIIIw. Soils limited chiefly by wetness and flooding.

VIIIw-1. Semifluid organic and clayey soils that are flooded most of the time.

Yields

The predicted yields of the principal crops grown in the parish are shown in table 2. The yields are based on data obtained by farmers, soil scientists, and others. Knowledge of yields in the parish and on the basis of research data. The predicted average yields per acre that can be expected at a level of management.

Yields higher than those shown in table 2 are grown in the parish, but their predicted yields are not included because the acreage is small or reliable data are not available.

Yields for sugarcane given in table 2 can be expected.

Soil fall is effectively used and conserved. Surface or subsurface drainage systems are installed.

Crop residue is managed to maintain soil tilth. Tillage is minimum but timely.

Pests, diseases, and weeds are controlled.

Fertilizer is applied according to soil tests and crop needs.

Adapted crop varieties are used at recommended seeding rates.

Conserving additional practices are used for rice: Higher order of suitable quality is used for irrigation.

Irrigation systems are properly designed and efficiently used.

Woodland

One-third of Iberia Parish is wooded with hardwoods. Some stands are of good commercial quality.

Production of the wood products is far below its potential. In addition to wood crops, the woodland is used as a wildlife habitat, recreation, and natural

TABLE 2.—Predicted average yields per acre of principal crops

[Absence of a figure indicates that the crop is not suited to the soil specified or is not commonly grown. The soils listed are suited to one or more of the principal crops.]

Soil series and map symbols	Sugarcane	Rice	Common bermudagrass	Tall fescue
	Tons	Bu	AUM ¹	AUM ¹
Alligator:				
Ag, Ax	26	130	6.5	8.5
At			5.0	
Baldwin: Ba	30	120	7.0	9.0
Calhoun: Ca	24	120	5.5	
Coteau: Co	25	110	6.0	
Frost:				
Fr	26	120	5.5	
Fs			5.5	
Gallion: Ga	29		7.5	
Galvez: Gv	29	110	7.5	
Iberia:				
Ia			4.0	
Ib	26	130	6.5	9.0
Jeanerette:				
Ja	27	110	7.5	8.5
Jn			7.5	8.5
Loreauville: Lo	30	110	8.0	8.5
Memphis:				
Me	20		7.0	
MH			6.0	
Newellton: NC			4.5	
Patoutville: Pa	27	110	6.0	
Perry	27		6.0	8.0
Mapped in a complex with Gallion soils.				
Sharkey:				
Sh	28	130	6.5	9.0
Sk	28	130	6.0	9.0

¹Animal-unit-month expresses the carrying capacity of pasture. It is the number of months that one cow, one steer, one horse, five hogs, or seven sheep can graze 1 acre without injury to the pasture.

beauty and for conserving soil and water. This section has been provided to explain how soils affect tree growth and management.

The soils of Iberia Parish that are suited to woodland have been assigned to eight woodland suitability groups. Table 3 shows the potential productivity and the management hazards of these soils when used for growing wood crops.

Each woodland suitability group is made up of soils that are suited to the same kinds of trees, need the same kind of management, and have the same potential productivity. Each is identified by a three-part symbol.

TABLE 3.—*Suitability of soils for woodland*

Soil series and map symbol	Woodland suitability group	Important trees	Site index	Erosion hazard	Equipment limitations	Seedling mortality	Trees suitable for planting
Alligator: Ag, Ax..... For Galvez part of Ax, see Galvez series.	2w6	Green ash..... Eastern cottonwood..... Water oak..... Sweetgum..... Cherrybark oak.....	80 100 90 90 90	Slight.....	Severe.....	Moderate.....	Green ash, eastern cottonwood, sweetgum, and cherrybark oak.
At.....	3w6	Green ash..... Eastern cottonwood..... Water oak..... Sweetgum..... Cherrybark oak.....	70 90 80 80 80	Slight.....	Severe.....	Severe.....	Green ash, eastern cottonwood, sweetgum, and cherrybark oak.
Baldwin: Ba.....	2w6	Green ash..... Eastern cottonwood..... Water oak..... Pecan..... Sweetgum..... American sycamore.....	80 100 90 90	Slight.....	Severe.....	Moderate.....	Green ash, eastern cottonwood, sweetgum, and American sycamore.
Calhoun: Ca.....	2w9	Cherrybark oak..... Water oak..... Loblolly pine..... Slash pine..... Sweetgum.....	80-90 80 90 90 80-90	Slight.....	Severe.....	Moderate to severe.	Cherrybark oak, loblolly pine, slash pine, and sweetgum.
Convent..... Mapped in a complex with Fausse association and Newellton association.	1w5	Green ash..... Eastern cottonwood..... Sweetgum..... American sycamore.....	80 110	Slight.....	Moderate.....	Slight.....	Eastern cottonwood, American sycamore, green ash, and water oak.
Coteau: Co.....	1w8	Loblolly pine..... Slash pine..... Water oak..... Cherrybark oak.....	100 90 90	Slight.....	Moderate.....	Slight.....	Loblolly pine, slash pine, and American sycamore.
Fausse: FA, FC, FE..... For Convent part of FC, see Convent series.	3w6	Green ash..... Baldecypress..... Pecan..... Water tupelo.....	70	Slight.....	Severe.....	Severe.....	Green ash, baldcypress, and nuttall oak.
Frost: Fr, Fs.....	2w9	Cherrybark oak..... Water oak..... Loblolly pine..... Slash pine..... Sweetgum.....	80-90 80 90 90 80-90	Slight.....	Severe.....	Moderate to severe.	Cherrybark oak, water oak, loblolly pine, slash pine, and sweetgum.
Gallion: Ga..... For Perry part, see Perry series.	2o4	Green ash..... Eastern cottonwood..... Cherrybark oak..... Water oak..... Sweetgum.....	80 100 90 90 90	Slight.....	Slight.....	Slight.....	Green ash, eastern cottonwood, cherrybark oak, water oak, and sweetgum.
Galvez: Gv.....	2w5	Green ash..... Eastern cottonwood..... Cherrybark oak..... Water oak.....	80 110 90 90	Slight.....	Moderate.....	Slight to moderate.	Green ash, eastern cottonwood, cherrybark oak, and water oak.
Iberia: la.....	3w6	Green ash..... Baldecypress..... Water tupelo.....	70	Slight.....	Severe.....	Severe.....	Green ash, baldcypress, and water tupelo.
lb.....	2w6	Green ash..... Eastern cottonwood..... Sweetgum.....	80 95 90	Slight.....	Severe.....	Severe.....	Eastern cottonwood and sweetgum.

B.—Suitability of soils for woodland—Continued

Important trees	Site index	Erosion hazard	Equipment limitations	Seedling mortality	Trees suitable for planting
Green ash.....	80	Slight.....	Slight.....	Moderate.....	Green ash, eastern cottonwood, sweetgum, water oak, and American sycamore.
Eastern cottonwood.....					
Water oak.....					
Sweetgum.....					
American sycamore.....					
Cherrybark oak.....	90				
Green ash.....	80	Slight.....	Moderate.....	Slight.....	Eastern cottonwood.
Eastern cottonwood.....	119				
Water oak.....	109				
American sycamore.....					
Green ash.....	100	Slight.....	Slight.....	Slight.....	Cherrybark oak, loblolly pine, slash pine, sweetgum, and American sycamore.
Cherrybark oak.....	110				
Slash pine.....	100				
Loblolly pine.....	100				
Sweetgum.....	110				
Green ash.....	70	Slight.....	Severe.....	Severe.....	Green ash, baldcypress, eastern cottonwood, nuttall oak, and sweetgum.
Eastern cottonwood.....	90				
Nuttall oak.....	80				
Sweetgum.....	80				
Cherrybark oak.....	100	Slight.....	Moderate.....	Slight to moderate.	Cherrybark oak, water oak, slash pine, loblolly pine, and sweetgum.
Water oak.....	100				
Loblolly pine.....	100				
Sweetgum.....	100				
Green ash.....	80	Slight.....	Severe.....	Moderate.....	Green ash, cherrybark oak, nuttall oak, water oak, and sweetgum.
Cherrybark oak.....	90				
Nuttall oak.....	90				
Water oak.....	90				
Sweetgum.....	90				
Green ash.....	85	Slight.....	Severe.....	Moderate.....	Green ash, eastern cottonwood, cherrybark oak, water oak, and sweetgum.
Eastern cottonwood.....	100				
Cherrybark oak.....	90				
Sweetgum.....	90				
Water oak.....					
Green ash.....	70	Slight.....	Severe.....	Severe.....	Green ash, eastern cottonwood, nuttall oak, and sweetgum.
Eastern cottonwood.....	90				
Nuttall oak.....	80				
Water oak.....					
American sycamore.....					

ates the relative pro-
very high; 2, high;
nd 5, low. The second
icates the important
rate or severe hazard
r management. The
icates the degree of
ral suitability of the

ems considered are:
ent limitations, and

ve no limitations to only
ited to needleleaf trees.

ve one or more moderate
eedleleaf trees. (None in

Numeral 3 indicates soils that have one or more severe limitations and are best suited to needleleaf trees. (None in Iberia Parish.)

Numeral 4 indicates soils that have no limitations to only slight limitations and are best suited to broadleaf trees.

Numeral 5 indicates soils that have one or more moderate limitations and are best suited to broadleaf trees.

Numeral 6 indicates soils that have one or more severe limitations and are best suited to broadleaf trees.

Numeral 7 indicates soils that have no limitation to only slight limitations and are suitable for either needleleaf or broadleaf trees.

Numeral 8 indicates soils that have one or more moderate limitations and are suitable for either needleleaf or broadleaf trees.

Numeral 9 indicates soils that have one or more severe limitations and are suitable for either needleleaf or broadleaf trees.

Numeral 0 indicates soils that are not suitable for the commercial production of major wood products. (None in Iberia Parish.)

Vermilion Bay,
and Game Pre-
vision of the
mission. Proper
at is practiced.
n Sealake soil
population of

ery Island has
of egrets and
1 best be seen

aries produce
water fish. Oys-
ction has de-
mbre has port
mercial fishing

ated lakes and
hly productive
g. The major
rappie, catfish,
of commercial
ie Atchafalaya
e produced and

mount of vege-
le, and in this
ldlife that can
ect the growth
of soil useful
vailable water
tness, (5) sur-
ard, (7) slope,
and water.

e rated accord-
ix elements of
dlife. A rating
ife habitat and
y created, im-
itations affect
actory results
the prescribed

ent of wildlife
e created, im-
Moderately in-
ient attention,
ory results.
tations for the
be created, im-
it management

limitations for
unsatisfactory
impossible or
tain habitat on

ed in table 4
g various kinds
ke up wildlife



TABLE 4.—*Suitability of soils as wildlife habitat*

Soil series and map symbol	Potential for habitat elements						Potential as habitat for—		
	Grain and seed crops	Domestic grasses and legumes	Wild herbaceous plants	Hardwood trees, shrubs, and vines	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
Alligator:									
Ag, Ax	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
At	Poor	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Andry: AY	Very poor	Very poor	Very poor	Very poor	Good ¹	Poor	Very poor	Very poor	Good ¹ .
Baldwin: Ba	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Calhoun: Ca	Poor	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Convent	Poor	Fair	Fair	Good	Poor	Poor	Fair	Good	Poor.
Mapped with Fausse and Newellton soils.									
Coteau: Co	Fair	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Delcomb: DE	Very poor	Very poor	Very poor	Very poor	Good ¹	Very poor	Very poor	Very poor	Good ¹ .
Fausse:									
FA	Very poor	Very poor	Very poor	Poor	Good	Good	Very poor	Poor	Good.
FC, FE	Very poor	Very poor	Very poor	Poor	Good ¹	Good	Very poor	Poor	Good ¹ .
Frost:									
Fr	Poor	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Fs	Poor	Fair	Fair	Good	Poor	Very poor	Fair	Good	Very poor.
Gallion: Ga	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor.
Galvez: Gv	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Iberia:									
Ia	Poor	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Ib	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Jeanerette: Ja, Jn	Good	Good	Good	Good	Good	Good	Good	Good	Good.
Lafitte: LA	Very poor	Very poor	Very poor	Very poor	Good ¹	Very poor	Very poor	Very poor	Good ¹ .
Loreauville: Lo	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Maurepas: MA	Very poor	Very poor	Poor	Very poor	Good ¹	Very poor	Very poor	Very poor	Good ¹ .
Memphis:									
Me	Fair	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor.
MH	Poor	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor.
Newellton: NC	Poor	Poor	Poor	Fair	Fair	Poor	Poor	Fair	Poor.
Patoutville: Pa	Fair	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Perry	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Mapped with Gallion soils.									
Placedo: PC	Very poor	Very poor	Very poor	Very poor	Fair ¹	Poor	Very poor	Very poor	Fair ¹ .
Seatlake: SC	Very poor	Very poor	Very poor	Very poor	Good ¹	Very poor	Very poor	Very poor	Good ¹ .
Sharkey:									
Sh	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Sk	Poor	Fair	Fair	Good	Good	Good	Fair	Good	Good.

¹Rating applies to natural state. Soil is poorly suited to management.

those who need information for material or as foundation to be built. Among those who are planning commissions, land developers, engineers,

soils highly important in engineering, strength, compaction characteristics, shrink-swell potential, grain size distribution, and soil slope. These properties and combinations, affect construction of roads, airports, pipe-line buildings, irrigation systems, and systems for disposal

information can be helpful to those

residential, industrial, commercial areas.

the routes for roads, highways, underground cables.

gravel, sand, or clay.

irrigation systems, irrigation systems, and other structures for conserving soil.

the nature of structures already existing on the soil on which they are located for the purpose of predicting perturbations on the same or similar locations.

the suitability of soils for cross-sections of vehicles and construction

primary estimates pertinent to a particular area.

in this section is presented show, respectively, estimates pertinent in engineering and inter-engineering uses.

with the soil map and other information can be used to make interpretations given in tables 5 and 6. the other useful maps.

however, does not eliminate the investigation at sites selected for preliminary works that involve heavy construction to a depth greater than 6 feet, generally greater than 6 feet, especially small ones, is as of a given mapping unit of other kinds of soil that properties and differ in suitability for engineering.

used in this soil survey have been defined that may not be familiar. the survey defines many terms commonly.

Estimates of soil properties

of two or more kinds of soil.
t appear in the first column of

Percentage passing sieve--		
No. 10 (2.0 mm)	No. 40 (0.42 mm)	No. 200 (0.074 mm)
100	95-100	80-100
	100	95-100
	100	95-100
	100	95-100
	100	95-100
	100	95-100
	100	95-100
	100	95-100
100	95-100	85-100
	100	95-100
	100	95-100
	100	95-100
100	100	95-100
100	100	95-100
100	100	95-100
100	100	85-100
100	100	90-100
100	100	90-100
100	100	90-100
100	100	90-100
100	100	90-100
100	100	90-100
100	100	90-100
100	100	95-100
100	100	95-100
100	100	95-100

significant in engineering

The soils in such mapping units may have different properties and limitations, and for this reason it is necessary to follow carefully this table. The symbol > means more than; the symbol < means less than]

Liquid limit	Plasticity index	Permeability	Available water capacity	Reaction	Shrink-swell potential	Risk of corrosion to uncoated steel	Hazard of—		Subsidence potential
							Wetness	Flooding	
Percent 12-85	33-55	Inches per hour 0.6-2.0	Inches per inch of soil 0.12-0.22	pH 4.0-5.5	High to very high.	High.....	Severe on Ag and Ax. Very severe on At.	None to slight on Ag and Ax. Severe on At.	None.
65-85	35-55	<0.06	0.12-0.18	4.5-5.5	Very high.....	High.			
				5.6-7.8		High.....	Very severe.....	Very severe.....	Low.
25-45	3-10	0.6-2.0	0.18-0.22	5.6-7.8	Low.....	High.			
35-55	11-16	0.2-0.6	0.17-0.19	6.6-8.4	Moderate.....	High.			
35-50	15-25	0.06-0.2	0.18-0.22	4.5-6.5	Moderate.....	High.	Severe.....	None to slight..	None.
51-75	25-45	<0.06	0.17-0.20	6.1-7.8	Very high.....	High.			
35-65	15-35	<0.2	0.17-0.21	6.6-8.4	High.....	High.			
<31	NP-10	0.2-0.6	0.21-0.23	5.1-6.0	Low.....	High.	Severe.....	None to slight..	None.
32-40	12-18	0.06-0.2	0.20-0.22	5.1-6.0	Moderate.....	High.			
26-35	5-15	0.2-0.6	0.21-0.23	5.1-6.0	Low.....	High.			
<27	NP-7	0.6-2.0	0.15-0.23	6.6-7.8	Low.....	Moderate.....	Moderate.....	Very severe on FC. Severe on NC.	None.
<27	NP-7	0.2-0.6	0.21-0.23	4.5-6.0	Low.....	High.	Moderate.....	None to slight..	None.
32-40	12-18	0.2-0.6	0.20-0.23	4.5-6.0	Moderate.....	High.			
25-37	5-15	0.2-0.6	0.20-0.23	5.6-6.0	Low.....	High.			
		>2.0		6.1-7.3		High.....	Very severe.....	Very severe.....	Medium.
28-40	3-13	0.6-2.0	0.22-0.25	7.4-7.8	Low.....	High.			
35-50	11-18	0.2-0.6	0.20-0.22	7.4-8.4	Moderate.....	High.			
		>2.0		5.6-7.3		High.....	Very severe.....	Very severe.....	Low.
60-90	30-52	<0.06	0.18-0.20	5.6-7.3	Very high.....	High.			
60-90	30-52	<0.06	0.18-0.20	6.1-8.4	Very high.....	High.			
25-31	5-10	0.2-0.6	0.21-0.23	4.5-5.5	Low.....	High.....	Severe.....	Moderate on Fr. None to slight on Fs.	None.
35-50	15-25	0.06-0.2	0.20-0.22	4.5-6.0	Moderate.....	High.			
<27	NP-7	0.6-2.0	0.21-0.23	4.5-6.0	Low.....	Low.....	None.....	None to slight..	None.
32-40	11-17	0.6-2.0	0.20-0.22	5.6-8.4	Moderate.....	Moderate.....			
23-35	4-15	0.6-2.0	0.20-0.23	5.6-8.4	Low.....	Low.			
<27	NP-7	0.6-2.0	0.21-0.23	4.5-7.3	Low.....	High.....	Moderate.....	None to slight..	None.
30-40	11-18	0.2-0.6	0.20-0.22	5.1-7.8	Moderate.....	High.			
25-45	5-20	0.6-2.0	0.20-0.23	6.6-7.8	Low.....	High.			
25-70	11-40	<0.2	0.15-0.19	6.1-7.8	Very high.....	High.....	Severe to very severe.	Very severe on Ia. None to slight on Ib.	None.
51-75	25-45	<0.06	0.14-0.18	6.6-8.4	Very high.....	High.			
30-65	12-35	0.06-0.2	0.14-0.20	7.9-8.4	High to moderate.	High.			

SOIL SURVEY

TABLE 5.—*Estimates of soil properties*

Texture	Classification		Percentage passing sieve—			
	Unified	AASHTO	No. 4 (4.7 mm)	No. 10 (2.0 mm)	No. 40 (0.42 mm)	No. 200 (0.074 mm)
Clay loam..	CL-ML, CL	A-4, A-6	100	100	95-100	90-100
	CL	A-6, A-7	85-100	80-100	75-100	70-100
	CL, CL-ML	A-6, A-4	90-100	85-100	80-100	80-100
Loessic ma-	Pt	A-8				
Silt loam..	ML, CL-ML, CL	A-4				95-100
CL		A-6	95-100	90-100	90-100	85-100
Fine sandy	CL-ML, CL	A-4	95-100	90-100	90-100	85-100
	Pt	A-8				
	ML, CL-ML	A-4	100	100	100	90-100
	CL	A-6, A-7	100	100	100	90-100
	CL, CL-ML	A-4, A-6	100	100	100	90-100
Loam, very	CH, CL	A-7	100	100	100	95-100
am, loamy	CL, CL-ML	A-4, A-6	100	100	95-100	85-100
l, clay.						
	ML, CL-ML	A-4	100	100	100	95-100
	CL	A-6, A-7	100	100	100	95-100
Clay loam..	CL	A-6, A-7, A-4	100	100	100	95-100
	CL	A-6, A-7	100	100	100	95-100
	CH	A-7	100	100	100	95-100
with thin	Pt	A-8				
fine	MH, CH	A-7	100	100	90-100	80-100
silt loam,						
am.	CH	A-7	100	100	100	90-100
ey, mucky	Pt	A-8				
n.	OH, MH	A-7	100	100	100	95-100
nd mucky	MH, OH	A-7	100	100	100	95-100
	CH	A-7	100	100	100	95-100
	CH, CL	A-7, A-6	100	100	100	95-100

used in classi-
re the Unified
rtment of De-
stem adopted
Highway and

d according to

particle size distribution, plasticity, liquid limit, and organic-matter content. Soils are grouped in 15 classes. There are eight classes of coarse-grained soils, identified as GW, GP, GM, GC, SW, SP, SM, and SC; six classes of fine-grained soils, identified as ML, CL, OL, MH, CH, and OH; and one class of highly organic soils, identified as Pt.

The AASHTO system classifies soils according to

want in engineering—Continued

Soil type	Plas- ticity index	Perme- ability	Available water capacity	Reaction	Shrink-swell potential	Risk of corrosion to uncoated steel	Hazard of—		Sub- sidence potential
							Wetness	Flooding	
40	5-18	Inches per hour 0.2-0.6	Inches per inch of soil 0.21-0.23	pH 6.1-7.8	Low.....	High.....	Moderate.....	None to slight..	None.
48	11-24	0.2-0.6	0.20-0.22	6.1-8.4	Moderate.....	High.			
50	4-17	0.2-0.6	0.21-0.23	7.9-8.4	Low.....	High.			
				6.1-8.4			Very severe.....	Very severe.....	High.
31	NP-10	0.6-2.0	0.21-0.23	6.1-7.8	Low.....	High.....	Moderate.....	None to slight..	None.
45	11-22	0.2-0.6	0.20-0.22	6.6-8.4	Moderate.....	High.			
31	4-10	0.6-2.0	0.21-0.23	6.6-8.4	Low.....	High.			
				5.6-6.5		High.....	Very severe.....	Very severe.....	High.
28	NP-7	0.6-2.0	0.20-0.23	5.1-6.5	Low.....	Low.....	None.....	None to slight..	None.
43	11-20	0.6-2.0	0.20-0.22	4.5-5.5	Moderate.....	Low.			
35	4-14	0.6-2.0	0.20-0.23	4.5-5.5	Low.....	Low.			
75	25-50	0.06-0.2	0.18-0.20	6.1-8.4	High to very high.	High.....	Moderate.....	Severe.....	None.
40	5-18	0.2-2.0	0.20-0.22	7.9-8.4	Low.....	High.			
28	NP-7	0.2-0.6	0.22-0.23	4.5-6.0	Low.....	High.....	Moderate.....	None to slight..	None.
50	13-25	0.06-0.2	0.20-0.22	5.6-7.3	Moderate.....	High.			
45	8-23	0.06-0.2	0.20-0.22	6.1-7.3	Moderate.....	High.			
50	16-25	0.06-0.2	0.17-0.20	5.1-6.0	Moderate.....	High.....	Severe.....	None to slight..	None.
80	33-50	<0.06	0.17-0.20	4.5-8.4	Very high.....	High.			
				6.1-8.4		Low.....	Very severe.....	Very severe.....	Low.
90	25-55	<0.06	0.05-0.10	6.1-8.4	High.				
80	30-45	<0.06	0.03-0.09	7.9-8.4	Very high.				
				7.9-8.4		High.....	Very severe.....	Very severe.....	Medium.
90	15-45	<0.2	0.05-0.15	7.9-8.4	Moderate to very high.				
90	35-45	<0.06	0.05-0.15	7.9-8.4	Very high.				
85	30-50	<0.06	0.18-0.20	5.6-7.8	Very high.....	High.....	Severe.....	Severe on Sk. None to slight on Sh.	Low.
85	15-50	<0.06	0.18-0.22	5.6-8.4	High to very high.				

properties that affect their use in highway construction and maintenance. In this system, a soil is placed in one of seven basic groups ranging from A-1 to A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Basic Group A-8 is for organic soils. In group A-1 are gravelly soils, which have high bearing strength and are the best soils for subgrade or foundation. At the other extreme, in group

A-7, are clay soils, which have low strength when wet and are the poorest soils for subgrade. Where laboratory data are available to justify a further breakdown, the A-1, and A-7 groups are divided as follows: A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, and A-7-6. As additional refinement, the engineering value of a soil material can be indicated by a group index number. Group indexes range from 0 for the best material

TABLE 6.—*Engineering*

in this series is made up of two or more kinds of soil. The other series that appear in the first column of this table.

End of limitation for—			
	Dwellings without basements	Sanitary landfill ¹ (trench type)	Local roads and streets
	Severe: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: shrink swell; low strength; wet.
s; yey.	Very severe: floods.	Severe: floods; wet; too clayey.	Severe: floods; wet; low strength; shrink swell.
s;	Very severe: floods.	Severe: floods; excess humus; wet.	Severe: floods; wet; excess humus.
	Severe: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.
ve.	Severe: wet.....	Severe: wet.....	Severe: wet.....
s; ks	Very severe: floods.	Severe: floods; wet.	Severe: floods.....
	Moderate: wet; shrink swell; low strength.	Severe: wet.....	Moderate: wet; shrink swell; low strength.
ls; ks	Very severe: floods; excess humus; wet; low strength.	Severe: floods; wet; excess humus.	Very severe: floods; excess humus; low strength; wet.
ls; wet.	Very severe: floods.	Severe: floods; wet; too clayey.	Severe: floods; wet; shrink swell; low strength.
	Very severe: floods.	Severe: wet; floods.	Severe: wet; low strength; floods.
	Severe: wet.....	Severe: wet.....	Severe: wet; low strength.
	Moderate: shrink swell; low strength.	Moderate: too clayey.	Moderate: shrink swell; low strength.
	Moderate: wet; low strength; shrink swell.	Severe: wet.....	Moderate: low strength.
ls; yey.	Very severe: floods.	Severe: floods; wet; too clayey.	Severe: floods; wet; shrink swell; low strength.
	Severe: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.

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TABLE 6.—Engineering

Situation for—		
Dwellings without basements	Sanitary landfill ¹ (trench type)	Local roads and streets
derate: wet; shrink swell; low strength.	Severe: wet.....	Moderate: low strength; shrink swell; wet.
y severe: oods; excess humus; wet; low strength.	Severe: floods; wet; excess humus; seepage.	Very severe: floods; excess humus; low strength; wet.
derate: wet; shrink swell; low strength.	Severe: wet.....	Severe: low strength.
y severe: oods; excess humus; wet; low strength.	Severe: floods; wet; excess humus; seepage.	Very severe: floods; excess humus; low strength; wet.
derate: low strength; shrink swell.	Slight.....	Moderate: low strength; shrink swell.
derate: low strength; shrink swell; slope.	Slight.....	Moderate: low strength; shrink swell; slope.
y severe: oods.	Severe: floods; wet.	Severe: floods; low strength; shrink swell.
derate: wet; shrink swell; low strength.	Severe: wet.....	Severe: low strength; shrink swell; wet.
ere: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.
y severe: oods.	Severe: floods; wet; too clayey.	Severe: floods; wet; shrink swell; low strength.
y severe: oods.	Severe: floods; wet; too clayey.	Very severe: floods; wet; shrink swell; low strength.
ere: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.
y severe: oods.	Severe: floods; wet; too clayey.	Severe: floods; wet; low strength; shrink swell.

¹ hazards of aquifer pollution and drainage into

tability as source of—

fill	Topsoil
v	Fair: thin layer.
ex- nus; low ; wet.	Very poor: ex- cess humus; salt; wet.
v	Fair: thin layer.
ex- nus; low ; wet.	Very poor: ex- cess humus; wet.
v	Good.
v	Fair: slope.
depth ches: ngth. swell. een f 15 and es: low n.	Poor: too clayey.
v	Fair: thin layer.
rink ow ; wet.	Poor: wet; too clayey.
et; swell; ngth.	Very poor: wet; salt.
ex- mus; low h.	Very poor: ex- cess humus; salt.
rink wet; low h.	Poor: wet; too clayey.
rink wet; low h.	Poor: wet; too clayey.

al indicates a hazard to maintenance built in, on, or with material hav-

to uncoated steel, as used in table ntial soil-induced chemical action akens uncoated steel. The rate of d steel is related to soil properties exture, total acidity, and electrical soil material. Installations of un-ersect soil boundaries or soil hori-eptible to corrosion than installa-kind of soil or in one soil horizon. ans that there is a low probability osion damage. A rating of *high* a high probability of damage and sures for steel should be used to amage.

tness is based on estimates of the free water stays in a soil after the s been reached. The hazard in this as *none, slight, moderate, severe*, rating of *none* indicates that free ys in the soil for less than 3 days rain. A rating of *slight* indicates the soil for more than 3 days but ter a saturating rain. A rating of that free water stays in the soil t but less than 3 months after a rating of *severe* indicates that free soil for more than 3 months but is ce for less than 4 months. A rating ates that free water is at or near e than 4 months.

ooding is the risk of flooding as a rflow, runoff from adjacent areas, ns of water. The soils affected and on of floods vary considerably with rainstorm. The ratings shown in d only for general guidance. Local sed for a more accurate estimate looding on a particular soil. The *light* for soils that are not subject are flooded less than once in 15 ossibility of flooding as a result of e system on the Mississippi and is included in this class. The haz-the soil is flooded at least once in e if the soil is flooded one or more is *very severe* if the soil is almost

ial rates the probability of settle-ils or soils that contain semifluid ings for subsidence take into ac-itial loss of elevation that results lowering of the water table; and loss of elevation that results from e material. The maximum possible tion is called *subsidence potential*. e; *low*, 0 to 3 inches; *medium*, 3 to to 51 inches; and *very high*, more

city. Wetness and flooding affect stabil-
rial. Slope and wetness affect ease of
amount of cut and fill needed to reach

nd playgrounds are used intensively for
es. Soils suitable for these uses need to
sive foot traffic. The best soils have a
face, good drainage, and a surface that
ns but not dusty when dry.

are attractive natural or landscaped
subject to heavy foot traffic. Most of the
traffic, however, is confined to access
soils have good drainage, are firm when
sty when dry, are free from flooding
on of use, and do not have slopes that
the cost of leveling sites or of building

ails are used for local and cross-country
or horseback. Design and layout should
no cutting and filling. The best soils are
ately well drained, are firm when wet
hen dry, are flooded no more than once
ion of use, have slopes of less than 15
ave few or no rocks or stones on the

as hold water behind a dam or embank-
able for reservoir areas have low seep-
elated to their permeability and depth
aterial.

, and other embankments require soil
nt to seepage and piping and of favor-
shrink-swell potential, shear strength,
lity. Presence of organic material in a
actors that are unfavorable.

soil material used in embankments for
ability ratings reflect (1) the predicted
f soil after it has been placed in an
hat has been properly compacted and
adequate drainage and (2) the relative
ing the material at borrow areas.

ed for topdressing an area where vegeta-
ablished and maintained. Suitability is
by ease of working and spreading the
s in preparing a seedbed; natural fer-
aterial, or its response of plants when
plied; and absence of substances toxic
ture of the soil material affects suit-
o considered in the ratings is damage
at the area from which topsoil is taken.

nd Classification of the

describes the factors of soil formation
ts on the soils in Iberia Parish. It also
rocesses of soil formation and defines
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the original volatility. Solubility in chemical installations color notations. of 7 or more and

in the undrained cases after drainage of mineral soils. the bulk density, the bulk density, listed percentage, but this is because weight of water material, and not a

age capacity than eight of the orange sites available not too different eable cations regular proportions common are found uturation is more and electrical con-water conditions.

organic soils was on Avery Island icle size and the

ptions, have sim-content is about s than 2 percent. hat of loess. The .4 is high in clay. ociated with the

in Andry S69La-tion. The higher Memphis S69La-of material other

al mineral layers in the successive ce of an argillic izon, such as that

unic soils reflects is essentially the ium chloride, and ying. No acid sul-ge.

neath the marsh on the type and up name for ex-llonite. Delcomb mall amounts of Memphis S69La-on of a Memphis

OIL SURVEY

TABLE 8.—*Physical and chemical*

[Numbers for the various test methods are shown in parentheses]

3-A-1)		Organic matter	Mineral content	Fiber		Sodium pyrophosphate color 10YR—
	Clay (0.002 mm)			Unrubbed	Rubbed	
Fine (0.02–0.02 mm)						
Percent	Percent	Percent	Percent	Percent	Percent	
		43	53	39	17	6/4
		26	66	34	9	6/3
42.0	29.6	8	93			
41.1	23.2	2	98			
37.7	36.0	1	99			
36.8	29.9	<1	99+			
42.4	25.7	<1	99+			
		44	59	48	28	7/3
		53	48	42	18	6/3
46.8	20.2	7	94			
45.6	20.5	1	99			
41.0	29.7	1	99			
38.5	32.8	<1	99+			
39.7	29.8	<1	99+			
		43	61	47	19	7/3
		52	53	43	15	5/3
		59	35	45	9	5/2
		60	41	41	8	3/3
		30	60	42	9	5/3
42.0	26.6	6	94			
40.3	23.7	1	99			
37.9	33.8	1	99			
		69	24	42	20	5/3
		47	53	32	7	5/3
		50	44	28	8	5/3
		58	38	47	4	7/2
		64	27	42	3	6/3
		53	47	30	2	4.5/3
		38				
9.0	89.8					
		71	18	53	2	6/4
		74	14	52	1	7/3
		79	14	52	2	6/3
		76	17	53	13	6/3
			17	58	28	5/4
		18				
42.1	25.1					
44.2	19.8					
32.4	19.6					

the minerals in mineral soil material suggest that a blanket of loess was deposited over southern Iberia Parish at a time in the past when the entire area was above sea level. The loess was exposed to weathering and soil formation long enough to move clay materials downward in the soil. Clays on well-drained sites were like Memphis soils. Soils on somewhat poorly drained sites were like Jeanerette soils.

Regional subsidence and a rise in sea level caused the area to be inundated. Saline marshes developed adjacent to the Gulf of Mexico. Freshwater marshes and swamps developed farther inland. As the region

as does not reflect directly the composition of water. Exchangeable cations show a higher proportion of calcium because it is selectively absorbed by organic and mineral soil material. Samples equilibrated in the laboratory to obtain soluble salts indicate levels of soluble calcium than apparently is true in the field. Concretions of calcium carbonate in Andry 23-2 probably formed after the area became a byproduct of sulfate reduction, sulfides are reduced and may precipitate as iron sulfides. A build-up of sulfides may cause an acid sulfate soil once the

TABLE 9.—*Chemical test*
[Numbers for the various test methods are

Sum	Sodium- absorp- tion ratio (5E)	Conduc- tivity (8A1a)	Soluble anions (8A1)	
			HCO ₃ (6J1a)	Cl (6K1a)
<i>Meq/l</i>		<i>Mmhos/cm</i>	<i>Meq/l</i>	<i>Meq/l</i>
103.2	12	9.38	0.0	54.2
87.2	13	8.41	.0	50.9
60.7	16	6.51	1.3	52.3
124.7	9	10.40	.0	49.4
101.7	9	8.71	.2	38.1
53.7	16	5.80	.9	47.2
106.4	17	10.40	.4	81.7
138.4	18	13.00	.2	106.3
26.4	15	2.91	1.8	22.7
49.2	9	4.88	.4	27.5

the residue of organics will be from 40 to 70 per-
cent of the original volume for layers below the sur-
face and 70 to 90 percent in the surface, where samples
are air-dry. If the upper 12 inches becomes air dry
the rest stays moist, with the water table main-
tained at 40 inches below the surface, shrinkage upon
drying (initial subsidence) would be 49 percent
in Lcomb S69La-89-6 and 53 percent in Lafitte
23-4. Mineral sediments that have never dried
go consolidation and subsidence when drained.
Subsidence is less than for organic material;
it ranges from 70 to 85 percent of the original
volume.

After initial subsidence, mineral soils stabilize. Or-

test data

(Numbers in parentheses in the column headings]

Cations			Sodium- absorption ratio (5E)	Conduc- tivity (8A1a)
Na (6Ia)	K (6Q1a)	Sum		
<i>eq/l</i>	<i>Meq/l</i>	<i>Meq/l</i>		<i>Mmhos/cm</i>
37.5	0.7	44.7	21	4.74
35.5	.5	43.8	18	4.72
59.5	.9	72.4	24	7.65
47.1	.7	57.3	22	6.05
33.4	.5	40.8	18	4.29
47.1	.8	59.1	20	6.38
23.0	.3	26.7	18	3.12
132.0	.8	139.2	74	14.30
459	10	595	58	42

	Extract- able acidity (6H1a)	Base saturation	Exchange- able sodium (5D2)
Sum			
<i>Meq/100g</i>	<i>Meq/100g</i>	<i>Percent</i>	<i>Percent</i>
26.5	13.9	94	8
19.2	7.9	99	11
19.9		98	19
19.5	9.2	91	9
12.0		79	9
62.3		80	11
102.5		119	23
116.1		107	27
89.1		87	17
93.7		104	8

be expected on from 60 days or fewer to 100 days each year during the period May to September.

are comparatively mild. Most years have 10 to 20 days when the temperature drops to 32° or below.

New Iberia, 6° was recorded on February 14, 1895. Temperatures of 32° or colder may be expected late in October to late in March, with some years having fewer than 10 to more than 20 days.

Ice occurs on about 2 days out of 7 each year. It is primarily of the shower type. Periods of rain sometimes occur during winter and are not frequent.

In the cooler months, the usual weather pattern is followed by cool weather, then several balmy moderating temperatures, and then another fall is unimportant; the average amount is 1 inch per year, and many years pass with amounts of several inches have been measured. Storms during January and February. On February 14 and 15, 1895, left 13.5 inches. New Iberia. Glaze or ice storms are rare. Shows the probabilities of last freezing temperature in spring and the first in fall.

Storms occur in all seasons; most months have more days with thunder; the annual average is 80 days. Almost all warm-season rain days are accompanied by lightning. These are most frequent in May, June, and August, and occur mostly between 10 a.m. and early evening. Fall and winter have fewer thunderstorms; the least frequent are in January and February. Cool-season thunderstorms are associated with passing weather systems (fronts and cyclones), may occur at any hour, and usually have stronger winds than those during summer. Tornadoes also occur in the parish. In 5 years in 10 the

Precipitation

One year in 10 will have—

Less than—	More than—
<i>Inches</i>	<i>Inches</i>
1.8	6.6
1.5	8.2
.7	8.2
.8	8.5
1.4	8.3
2.3	9.1
3.4	12.2
2.7	9.3
1.4	7.4
.9	6.1
.5	6.5
2.5	8.0
43.2	65.7

soil moisture avail-

idity is about 77 per-
cent 30 percent are rare,
the hours during the
0 percent totals about
most frequent in sum-
mer during periods of
night and early morn-
ing through the day.
percent of the possible
less than 2,800 hours

over 10 miles per hour,
including tropical storms
may exceed 50 miles per
hour gusts. Wind direc-
tion fall, when they are
standard 30-foot instru-
ment that a sustained wind-
speed has a 50-year mean

harvest in 1969 was 591.
acres. Eighty percent of
the farms. Total cropland
about 53,412 acres was
planted, and 27,926 acres
plow, or idle. There were
irrigated land is used
for rice land. There were
13,528 were milk cows.
top (fig. 11). Acreage
and seed ranged from
during the period 1959



Red River flow. As of the Atchafalaya ceasingly, sediment n and is reaching ne delta has begun is anticipated that Bay will be filled year 2020 (20). An this deltaic progra- new lands being sh Island. Already land, the sediments loping Atchafalaya

c topographic fea- Weeks, and Avery rface salt domes in es, standing at ele- and 150 feet, re- reless marsh and ned for salt. Their e caused primarily s by the salt forced and differences in d surrounding sedi- s have collapsed be- enomenon has pro- s Lake Peigneur on

ie for salt and sub- es of Iberia Parish al data. In particu- nd has revealed the nd cordage. Radio- nents suggest that ears old, and thus t this type found in

ces

yield large quanti- lepth from 200 feet much as 4,000 gal- ange from 1,000 to vels range in depth irface. (18).

re Lake Dauterive, Bay Natchez, and d waterways asso- resh.

d water bodies are rom near fresh to streams that flow During periods of some saline.

al nonrenewable re- as fields are located the world's largest cement-type domes nd Weeks Island.

nt periods
have mot-

are light
downward,
in some

me. They
are gray
the deeper

nd (sand-

Excessive

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Summer
regions of
growing
of plant
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sediments,
unless pro-

bounded
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depth. A
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residues.
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hat in the

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by small

plots sur-

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rmly over

aced fur-
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ection.
y cultiva-

SOIL SURVEY

ie soil surface through stem.

pen ditches or tile lines high to wet the soil.

sed at high points, flows distribution.

y of silt-sized particles,

supporting loads.

oded areas. Surface not ntly with sedges, cat- plants. Includes fresh-

spots of different colors ing in soils usually indi- nage. Descriptive terms ommon, and many; size ntrast —faint, distinct, nts are these: fine, less in diameter along the g from 5 millimeters to in diameter along the re than 15 millimeters the greatest dimension. nt and animal material, composition. Readily den- distinguished from ast the stage of rapid

soil or to a soil horizon atter, such as peat soils, In chemistry, organic

ly weathered rock from

ate, such as a crumb, a d.

water through the soil. ie specified use.

f subsurface tunnels or

in the soil immediately

soil through all its hori- material.

nate, soil, and relief are distinct kind of climax

alkalinity of a soil, ex- ts to pH 7.0 is precisely either acid nor alkaline. gives an acid reaction. alkalinity are expressed

	pH
sal	6.6 to 7.3
y alkaline	7.4 to 7.8
rately alkaline	7.9 to 8.4
gly alkaline	8.5 to 9.0
strongly	
aline	9.1 and higher

of a land surface, con-

r through the soil. Seep- se.

en dry and the swelling an damage roads, dams, ctures. It can also dam-

ents in a soil that range eters. Most sand grains e of any mineral compo- f any soil that contains ore than 10 percent clay. il that range in diameter (millimeter) to the lower imeter). Soil of the silt

textural class is 80 percent or more silt and less than 12 percent clay.

Slickensides. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on relatively steep slopes and in swelling clays, where there is marked change in moisture content.

Soil. A natural, three-dimensional body on the earth's surface that supports plants and that has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Structure, soil. The arrangement of primary soil particles into compound particles or clusters that are separated from adjoining aggregates and have properties unlike those of an equal mass of unaggregated primary soil particles. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles) adhering together without any regular cleavage, as in many claypans and hardpans).

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tillage of a soil below normal depth ordinarily to shatter a hardpan or claypan.

Surface soil. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, about 5 to 8 inches in thickness. The plowed layer.

Swamp. Any area, such as a marsh or bog, where the soil is saturated with water much of the year; during most of the year, however, the surface of the soil is not deeply submerged.

Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that it may soak into the soil or flow slowly to a prepared outlet without harm. Terraces in fields are generally built so they can be farmed. Terraces intended mainly for drainage have a deep channel that is maintained in permanent sod.

Terrace (geological). An old alluvial plain, ordinarily flat or undulating, bordering a river, lake, or the sea. Stream terraces are frequently called second bottoms, as contrasted to flood plains, and are seldom subject to overflow. Marine terraces were deposited by the sea and are generally wide.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand*, *loamy sand*, *sandy loam*, *loam*, *silt loam*, *silt*, *sandy clay loam*, *clay loam*, *silty clay loam*, *sandy clay*, *silty clay*, and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

***Unstable fill.** Risk of caving or sloughing in banks of fill material.

Upland (geology). Land consisting of material unworked by water in recent geologic time and lying, in general, at a higher elevation than the alluvial plain or stream terrace. Land above the lowlands along the rivers.

Water table. The highest part of the soil or underlying rock material that is wholly saturated with water. In some places an upper, or perched, water table may be separated from a lower one by a dry zone.

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GUIDE TO MAPPING UNITS

n of capability units, see pages 34 and 35. For information on woodland suitability groups, see table 3, pages 36 and 37]

Mapping unit	Described on page	Capability unit	Woodland suitability group
		Symbol	Symbol
lay-----	12	IIIw-2	2w6
oils, frequently flooded-----	12	VIIw-1	3w6
alvez complex-----	13	IIIw-4	---
or soil-----	--	-----	2w6
soil-----	--	-----	2w5
iation-----	14	VIIw-2	---
ty clay loam-----	14	IIIw-3	2w6
t loam-----	15	IIIw-6	2w9
loam-----	17	IIw-2	1w8
ociation-----	17	VIIIw-1	---
ciation-----	18	VIIw-1	3w6
ent association-----	19	VIIw-1	---
soil-----	--	-----	3w6
soil-----	--	-----	1w5
s-----	19	VIIw-1	3w6
loam-----	20	IIIw-6	2w9
loam, overwash-----	20	IIIw-7	2w9
ry complex, gently undulating-----	21	IIIw-5	---
soil-----	--	-----	2o4
oil-----	--	-----	2w6
loam-----	22	IIw-1	2w5
y clay loam, frequently flooded-----	22	Vw-1	3w6
y clay-----	23	IIIw-1	2w6
silt loam-----	23	IIw-3	2w5
Coteau complex, 3 to 8 percent			
-----	24	IIIe-1	---
tte soil-----	--	-----	2w5
soil-----	--	-----	1w8
ociation-----	25	VIIIw-1	---
silt loam-----	26	IIw-3	1w5
sociation-----	26	VIIIw-1	---
t loam, 5 to 8 percent slopes-----	27	IIIe-1	1o7
ociation, hilly-----	28	VIe-1	1o7
onvent association, frequently			
-----	28	Vw-3	---
on soil-----	--	-----	3w6
soil-----	--	-----	1w5
silt loam-----	29	IIw-2	1w8
ociation-----	31	VIIw-2	---
sociation-----	31	VIIIw-1	---
y-----	32	IIIw-1	2w6
y, occasionally flooded-----	32	IVw-1	3w6

